**OCTOBER 21, 2019****VIA OVERNIGHT MAIL**

Department of the Army
Regulatory Branch
Attn: Ms. Katie Heard
PO Box 3755
Seattle, Washington 98124

Re: Alternatives Analysis for Costco Wholesale, Lake Stevens
Reference No. NWS-2019-175

Dear Katie,

This Alternatives Analysis responds to question No. 5 in your April 8, 2019 letter and addresses the proposed construction of a Costco Wholesale, Inc. (“Costco”) membership sales facility (“Costco Facility”) in the City of Lake Stevens, Washington (“City”). The development proposal is a public/private partnership between Costco and the City that includes construction of an approximately 160,000 square foot Costco Facility and the construction of public infrastructure identified in the City’s 20th Street Corridor Subarea Plan (“Subarea Plan”), which is also required, in part, to address anticipated traffic and stormwater impacts of the proposed Costco Facility. This public infrastructure includes improvements to 24th Street SE, 91st Avenue SE and a new roundabout on State Route 9 (collectively “Road Projects”).

Because the Costco Facility and Road Projects will impact jurisdictional wetlands, the purpose and need for each element of the overall Project is discussed in this Alternatives Analysis.

A. Project Need

Costco owns and operates hundreds of membership sales facilities in the United States and internationally. In Washington, the prototypical Costco facility is approximately 160,000 square feet with 750 to 950 parking spaces located at grade adjacent to the Costco facility. Approximately 15 to 20 developable acres of land are required to accommodate a Costco facility. Costco estimates that approximately 42,000 members (individuals and businesses) are located in the service area that would be served by the proposed Lake Stevens Costco Facility.

The Road Projects that are included in the development proposal are intended to address the City-identified problem of meeting local demand for large retail shopping areas in the City’s 20th Street SE Corridor Subarea (“20th Street SE Subarea”). Development of the Costco Facility at the Preferred Alternative location is consistent with the City’s 20th Street Corridor SE Subarea Plan and will help the City achieve its Growth Management Act (Ch. 36.70A RCW) 2035

employment targets and will fulfill the City’s growth strategy for development of a local commercial center in the 20th Street SE Subarea. A copy of the City’s 20th Street SE Subarea Plan is attached as **Appendix A**.

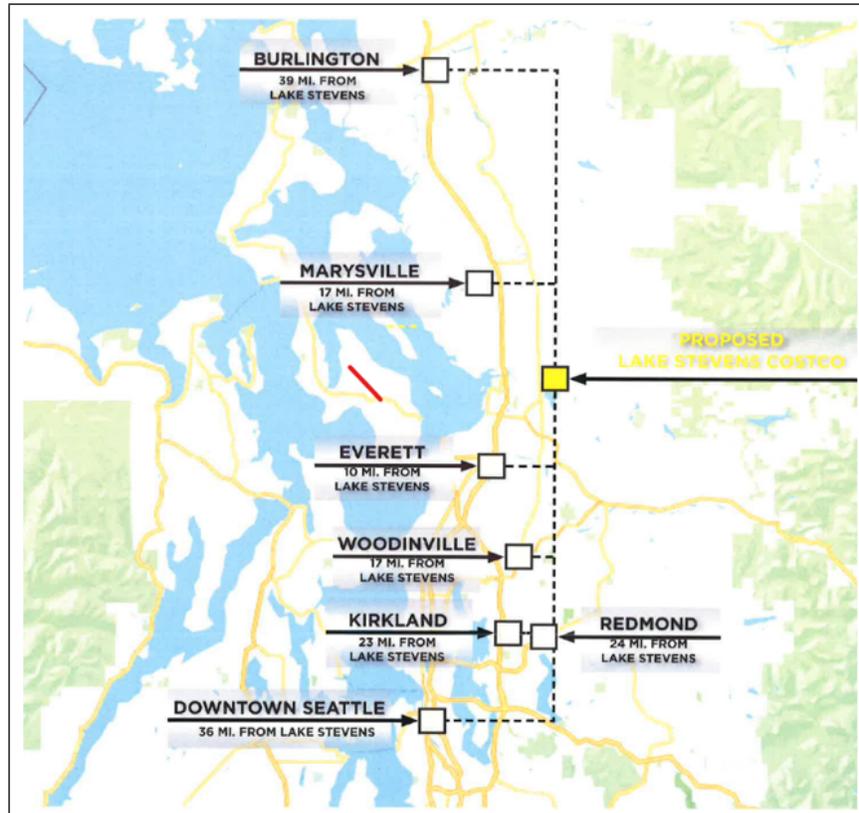


Figure 1: Current Costco Facility Locations And Proposed Lake Stevens Location

Figure 1 shows that residents within the Lake Stevens service area lack access to existing Costco facilities within a reasonable drive time. Costco’s population growth data demonstrates that the population in the Lake Stevens service area will grow around 10% (or 4-17% depending on a particular segment) in the years 2018-2023. With the population growth, the demand for goods and services sold by Costco in the Lake Stevens service area will grow as well.

**Table A
Existing Costco Location Characteristics for Facilities Near Proposed Facility Site**

Facility	Site Size	Store Size	Parking	Miles from Proposed Facility
Everett	21.0 acres	156,206 sq. ft.	801 stalls	10 miles
Marysville	15.2 acres	149,092 sq. ft.	703 stalls	16 miles
Lynnwood	15.4 acres	155,710 sq. ft.	703 stalls	16 miles
Woodinville ¹	14.7 acres	148,835 sq. ft.	692 stalls	17 miles

¹ The Woodinville Costco Facility is considered undersized and under-parked based on Costco’s current prototypical design.

1. Need for a Costco Facility in the Lake Stevens Service Area

In selecting the Preferred Alternative Lake Stevens site, Costco and its consultants reviewed the demographic and population information for Lake Stevens and surrounding areas of incorporated Snohomish County. This information demonstrated that the Lake Stevens area was underserved, but that potential development sites were limited by both the lack of suitable large land assemblages and geographic constraints, as sites located too far to either the north or south would cannibalize sales from existing Costco facilities in Marysville and Woodinville, and sites located to the east lacked sufficient population density to support the proposed Costco Facility.

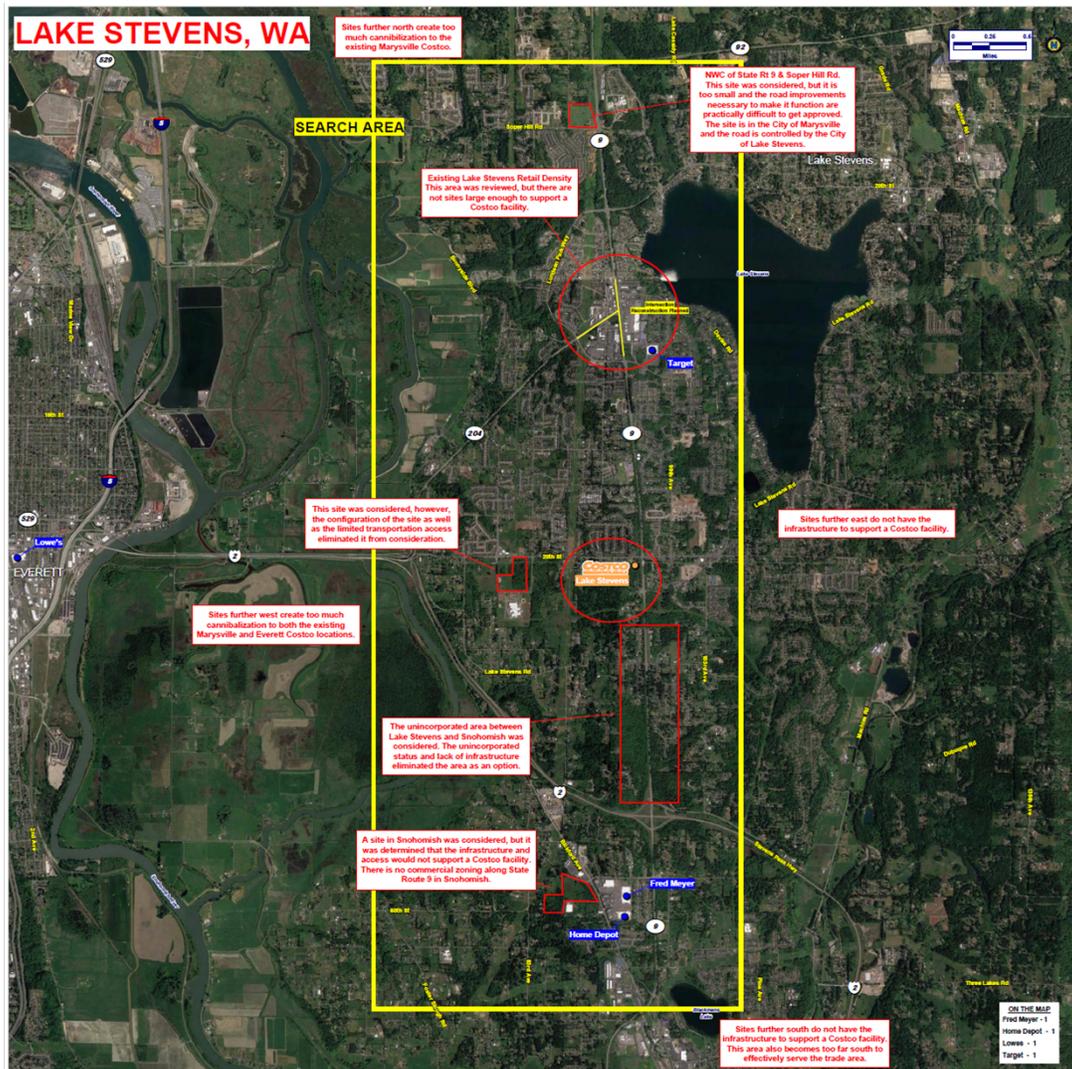


Figure 2: Search Area for Costco Lake Stevens Facility

Costco narrowed potential site selection to the area inside the yellow rectangle on Figure 2. As described below, Costco looked at actual properties, and Costco also explored possible property assemblages in other areas where there were no large parcels available for sale at the time of the site location search.

2. Project Requirements for a Costco Facility

The following criteria were employed in evaluating the alternative sites.

- Flat site (approximately 2% finished grade) with approximately 15-20 developable acres necessary to accommodate a 160,000 square foot building, 750-950 parking spaces and a 3-5 island fuel facility;
- Property or assemblage available for purchase;
- Reasonable site development or redevelopment costs;
- Currently zoned for commercial uses or easily rezoned to such zoning;
- Property located in immediate proximity to a major roadway with sufficient roadway infrastructure to handle projected traffic volumes;
- Density of members and businesses within the particular service area; and
- Available public infrastructure and utility connections.

3. Urban Growth Area

Pursuant to Ch. 36.70A RCW, Washington’s Growth Management Act (“GMA”) commercial development, such as a Costco facility, requires urban level services that are typically found inside a GMA Urban Growth Area (“UGA”). The Lake Stevens UGA and the location of Costco’s Preferred Alternative are shown on Figure 3.

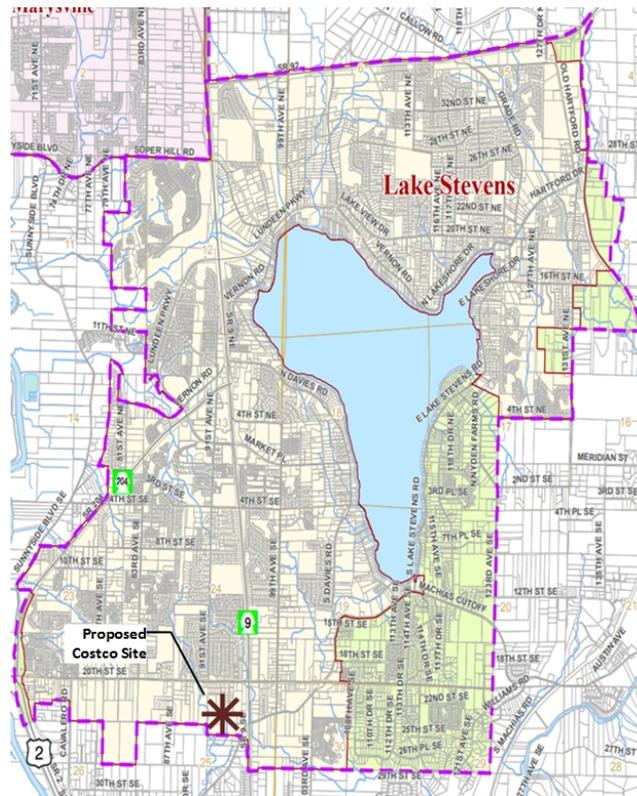


Figure 3: Lake Stevens Urban Growth Area and Location of Costco Preferred Alternative

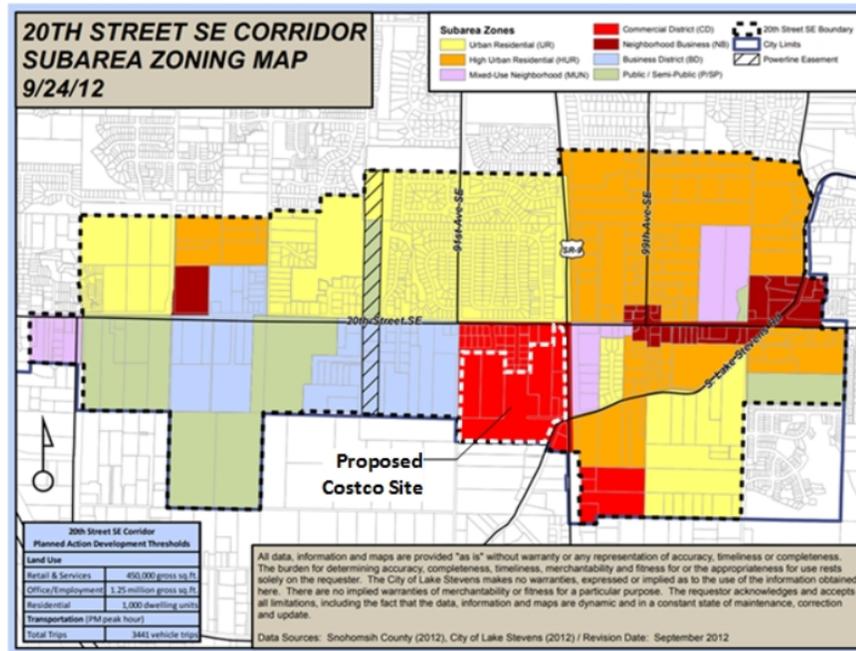


Figure 4: Lake Stevens 20th Street SE Subarea Zoning and Location of Costco Preferred Alternative

Figure 4 depicts the City’s designated 20th Street SE Subarea and shows that the Costco Preferred Alternative property is zoned “Commercial District”, which accommodates Costco’s proposed use.

B. Analysis of Project and Alternatives Under Corps’ Criteria.

1. Basic Project Purpose (Water Dependency)

The project purpose is to provide a Costco facility in the Lake Stevens service area. A Costco facility does not need to be located in an aquatic environment to meet its purpose and is therefore not water dependent. However, as discussed below, there is no alternative site within the Lake Stevens service area that meets the Costco development requirements without wetland impacts.

2. Overall Project Purpose and Geographic Area

The project purpose is to develop a Costco facility in the Lake Stevens service area, together with necessary parking, roads, and stormwater infrastructure.

3. Project Requirements

a. Land Availability. In the Lake Stevens service area, which includes other jurisdictions, there are limited parcels or assemblages large enough to accommodate a Costco facility. Costco does not currently own any property in the Lake Stevens service area. Therefore, Costco looked at properties, and possible assemblages, that were of sufficient size and were commercially zoned, or perceived to be easily rezoned for commercial uses, that were available for purchase.

b. Practicality

(1) Site Size. Minimum and maximum acreage necessary for construction of the project.

- (i) A Costco facility requires a developable site of approximately 15 to 20 acres to accommodate approximately 750-950 parking stalls and a gasoline fueling facility with 3-5 fueling islands. Because a Costco facility functions as both point of sale for member purchases and to maintain an inventory, it requires an approximately 160,000 square foot (approximately 3.6 acre) horizontal floorplate.
- (ii) The site must be large enough to accommodate at-grade parking.
- (iii) Site configuration: Costco prefers a rectangular site, but a square site could also be workable.
- (iv) Costco considered sites with sizes that ranged from approximately 15 acres to 30 acres.

(2) Topography.

- (i) Costco considered sites with sizes that ranged from approximately 15 acres to 30 acres.
- (ii) Finished grades/slopes across the site cannot exceed 2% (maximum) per Costco standard and the ADA requirements.
- (iii) Sites must be contiguous without significant intervening natural or man-made features.

(3) Utilities.

- (i) Utilities are available without undue connection costs (pass/fail).

(4) Access/Proximity to Target Market - Existing Costco Facilities and Residential Developments.

- (i) Minimal distance from existing Costco facilities of 5-10 miles depending on density and transportation infrastructure.
- (ii) 10-mile maximum distance from high-density residential areas
- (iii) Site location that serves underserved areas of Lake Stevens, Snohomish, Granite Falls and Monroe and surrounding areas of unincorporated Snohomish County including along SR-9 and SR-2.
- (iv) The site location needs to provide traffic and parking relief for existing Costco facilities in Woodinville, Everett and Marysville, while not cannibalizing those facilities to a level that compromises their operations. The site needs to reduce drive times and provide increased efficiency of the shopping experience for members in the Lake Stevens service area.
- (v) A site located directly adjacent to highway so passing motorists had unobstructed view (visibility) was a favorable characteristic.

(vi) A site within a defined distance of existing housing development or defined residential density necessary to support the desired customer base was a favorable characteristic.

(5) Access/Proximity to Major Arterial Roads.

- (i) Minimal distance from high-traffic roads and SR 9: frontage along a major arterial is required.
- (ii) Site must be proximate to transportation infrastructure sufficient to accommodate incoming and outgoing member visits.
- (iii) Access to highway for trucking/supply purposes; sites adjacent to SR-9, Highway 2, and I-5 simplify logistics and was a favorable characteristic.

(6) Ability to be Operational by 2021.

- (i) A lengthy permitting process may make the project unfeasible.

(7) Zoning.

- (i) The site must be appropriately zoned for commercial and allow gas sales, retail sales, and tire installation facilities, or easily rezoned to accommodate these uses. The site must be within a City limits or within a UGA to allow urban-level development.
- (ii) If the site is not properly zoned, the procedures for obtaining a rezone are considered including cost, delay, and probability of success.

(8) Cost.

- (i) Acquisition, rezoning (if needed), construction, mitigation, maintenance, and operation of the new store must not result in excessive capital, operating and maintenance expenditures that put the operations at unacceptably elevated financial risk. Overall cost of project construction was considered as a site selection screening criteria.

(9) Existing Technology.

- (i) Use of existing technology (equipment, methods, and materials) in the engineering design, construction, maintenance, and operation of the Costco Facility is preferred. Design alternatives that are unconventional and unproven in the regional market were viewed less favorably.

4. **Identification of Potentially Practicable Alternatives (On-Site and Off-Site) Within Geographic Area**

The following alternatives were analyzed for this Project:

Alternative 1: City of Snohomish Bickford Avenue Site. Alternative 1 is a 30-acre site that includes approximately 12 acres of wetlands and a small stream. After buffers are considered, only about 6 acres of the site remain developable, which does not meet Project Requirement for minimum available developable area.

Alternative 2: Lake Stevens 20th Street SE Site. Alternative 2 is approximately 23 acres in size and fronts on 20th Street SE in the City of Lake Stevens. This site contains 3 apparent wetland areas with an approximate total area of 4 acres, one of which is a headwater to a stream that flows to the north under 20th Street SE. Once buffers were added to the wetlands only about 5 acres remained developable and this land was broken up by the dispersion of the three wetlands. Thus, the site does not meet the Project Requirement for available minimum available developable area.

Alternative 3: Snohomish County Soper Road Site. Alternative 3 is located within unincorporated Snohomish County just north of the Lake Stevens City limits. This site is approximately 16 acres. There are no wetlands on the site, but a probable Category III wetland is located just east of the site. In Snohomish County, this wetland would most likely have a 110-foot buffer that would encroach along the entire east side of the site. This buffer would take up approximately 3 acres of the site reducing usable site area to 13 acres, which does not meet the Project Requirement for minimum available developable area.

Alternative 4: Snohomish County SR-9 Site. Costco looked in this area, but did not identify a parcel or potential assemblage of sufficient size for construction of the proposed Costco Facility. In addition, the zoning in this area did not support the proposed Costco Facility. Thus, the site does not meet the Project Requirement for available property.

Alternative 5: Lake Stevens Commercial Center Site. This area is already built out with a variety of commercial and residential uses. Costco did not identify a parcel or potential assemblage of sufficient size for construction of the proposed Costco Facility. Thus, the site does not meet the Project Requirement for available property.

Alternative 6: Preferred Alternative. As discussed below, the Preferred Alternative meets all of the Project Requirements. The assemblage is available for purchase; it is commercially zoned; it is located in the Lake Stevens service area; it is proximate to major arterials; and it is of sufficient size to accommodate the Costco Facility and related infrastructure and mitigation.

Alternative 7: Enlarge Existing Costco Locations. This Alternative does not meet the Project Requirement of bringing a Costco Facility to the Lake Stevens service area.

Alternative 8: No Action Alternative. This Alternative does not meet the Project Requirement of bringing a Costco Facility to the Lake Stevens service area.

5. Evaluation of Alternatives Based on Project Requirements

A. Applicant's Preferred Alternative

a. Availability. The various parcels that make up the assemblage are available for purchase.

b. Practicability

(1) Site Size. Meets Project Requirements. The overall site size for Costco's Preferred Alternative is about 36.74 acres. Of that, approximately 22.46 acres are located north of the proposed alignment for 24th Street SE. This area is where the Costco building, parking lot and fuel facility are proposed for construction. The remaining 14.28 acres are located south of the [the Costco property and provide for proposed alignment for 24th Street SE., storm facilities and wetlands. Costco proposes constructing a stormwater detention pond of 3.70 acres in this area that would serve both the Costco Facility and Road Projects. The remainder of the property located south of the 24th Street SE alignment (approximately 6.90 acres) would be used for wetland preservation and mitigation.

(2) Topography. Meets Project Requirements. Grades/slopes across the site can be graded so that they do not exceed 2%.

(3) Utilities. Meets Project Requirements. Required utilities are available and connections can be obtained without excessive engineering or costs. Most utilities are either adjacent to, or easily extended to, this location.

(4) Access/Proximity to Target Market - Existing Costco Warehouses and Residential Developments.

Meets Project Requirements:

- This site satisfies minimal distance from existing Costco warehouses;
- This site satisfies maximum distance from residential developments;
- The site would serve the Lake Stevens service area;
- The site would provide traffic and parking relief for existing Costco warehouses in Woodinville, Everett and Marysville, without unduly cannibalizing sales at these locations;

- This site would reduce drive times and provide increased efficiency of the shopping experience; and
- After the planned road improvements in the area, the road network in the vicinity of the site will be able to accommodate the Costco traffic.

(5) Access/Proximity to at least One Major Arterial Road.

Meets Project Requirements:

- This site satisfies requirement for minimal distance from high-traffic roads and SR 9.
- This site is bounded to the south by an existing ROW for 24th Street SE. The ROW for 91st Ave SE is an approved transportation improvement for the City of Lake Stevens.

(6) Ability to be Operational by 2020. Meets Project Requirements. This site has highest probability to have the project operational by 2020 by avoiding lengthy rezoning process and a lengthy permitting process.

(7) Zoning.

Meets Project Requirements:

- This site satisfies the land use Project Requirement because it is zoned Commercial District (CD), which zone allows gas sales, retail sales, and tire installation facilities. The site is within the City of Lake Stevens UGA. This site is specifically identified in the 20th Street SE Subarea Plan as an ideal location for a retail center.
- For this site, there is no need to consider the cost, existing technology, and logistics of the procedures required in a rezone request.
-

(8) Constructability. Meets Project Requirements. The proposed Costco Facility and related Road Projects can be constructed in this area.

(9) Existing Technology. Meets Project Requirements. The Preferred Alternative can be developed with Costco’s prototypical building design, parking lot layout and fueling station.

B. On-Site Alternative(s)

Overview of Proposed Mitigation and Avoidance:

Costco cannot site its Costco Facility and the 24th Street SE road project entirely in the uplands on the Preferred Alternative parcel. Costco explored the following on-site alternatives:

1. **Total avoidance.** See below regarding “No Action” Alternative.

- 2. Full mitigation on-site.** Full on-site mitigation is not possible.
- 3. Relocation of part of the wetland to retain it on-site.** Partial on-site mitigation is possible and is being proposed. Specifically, Costco proposes wetland creation in upland areas near existing Wetland D as shown on the Mitigation Plan, Sheet 2. The Sewall Consulting, Inc. Wetland Mitigation Plan is included in the resubmittal packet along with this analysis.
- 4. Partial avoidance in increments.** The Costco Facility and Road Projects have been designed to maximize avoidance while still allowing development that meets the Project Requirements.
- 5. Moving the building to the north portions of the site.**
 - (1) The northern portions of the site are the steepest and least developable.
 - (2) Because of the shape of the property, there would not be sufficient property to support the Costco Facility if the on-site wetlands were totally avoided. Also, there is a significant rise in grade on the northern portion of the site.
 - (3) Adjacent properties to the north are currently developed with residential uses. The proposed on-site location of the Costco Facility provides a buffer for these residential uses. Furthermore, regardless of where the Costco Facility is located on the property, it still would require access to 24th Street SE, which is being constructed to the south.
- 6. Multi-level parking structure.**
 - (1) A Multi-level parking lot is not desirable because these structures require members to circulate vertically with heavy loads of purchased items, which are often bulky or fragile. The Project layout, which includes a surface parking field, is consistent with all Costco facilities in Washington. Additionally, a multi-level parking structure would require more soil amendment in order to hold the heavier structure and would significantly increase Project costs above a level that is economically justified. The cost would be prohibitive and the Project would be unbuildable.
 - (2) The Costco business model relies in significant part on selling products in bulk. This fundamental premise drives all aspects of Costco facility development. For example, Costco facilities are designed with a maximum slope of 2% to safely accommodate the oversized carts or flat-bed carts that members use while shopping. The carts are sized to accommodate a large volume of goods. The parking field grade mitigates for the potential safety issue that could occur if heavy carts were operated on steeper grades. For multi-level parking structures, parking decks with slopes over 2% are common, which creates a potential safety issue. Also, moving large carts between floors becomes a significant issue.
 - (3) Costco does operate some facilities that have multi-level parking facilities, but only in very dense urban markets where there is limited land available to

accommodate a traditional parking field. Further, in dense urban markets, members shop differently. Typically, urban members live in close proximity to the store and make more smaller trips compared to suburban markets where more infrequent large trips predominate.

- (4) To foster development in the 20th Street SE Corridor Subarea, the City has encouraged public/private partnership and has committed funds to facilitate the construction of new roads and stormwater system, and to otherwise further enhance existing transportation and utility infrastructure in this area. The City’s goal is to develop the 20th Street SE Corridor to provide new jobs and residential units that would be close to potential new job creation sites.

C. Off-Site Alternative(s)

**Table B
Summary of Possible Alternatives**

Site	Site Size	Wetland Stream	Developable Land	Site Constraints	Meets Project Need
Alt 1: Bickford Avenue	30 acres	12 acres of wetland and one stream	6 acres	Wetlands and stream	No. Developable area is too small
Alt 2: 20 th Street SE	23 acres	4 acres of wetland and stream headwater	5 acres	Irregular shape and large wetland area	No. Wetland and irregular parcel shape. Developable area is too small.
Alt 3: Soper Road	16 acres	Wetland located just off-site with buffer on-site Stream crossing required	13 acres	Wetland buffer from off-site wetland and stream crossing	No. Developable area is too small.
Alt 4: SR 9	No available site identified	Abuts large wetland with fish-bearing stream	None identified	No parcel or assemblage available for purchase	No. No available property.
Alt 5: LS Commercial Center	No available site identified	Several large wetlands and streams	None identified	Require significant wetland fill	No. No available property.

Alt 6: Preferred Alternative	22.46 acres north of proposed 24 th St. SE alignment. Plus an additional 14.28 acres for alignment and land to the south.	1.83 acres of wetland impact	Approx. 15 acres assuming wetland fill	Some wetland impacts mitigation required	Yes. Site size and location are appropriate, development meeting the project need possible with mitigated wetland fill
Alt 7: No Action	N/A	N/A	N/A	N/A	No. Does not meet need in identified service area.
Alt 8: Enlarge Existing Costco Facilities	N/A	N/A	N/A	N/A	No. Does not meet need in identified service area.

D. Discussion of Alternatives

Alternative 1. City of Snohomish Bickford Avenue Site

This alternative site is located in the City of Snohomish and is approximately 30 acres in size. The site is located along the west side of Bickford Drive and includes Parcels #00448800002001, #2002, #1900, #2805000200600 & #28050100202500. The site is a mix of forested and agricultural land with a single-family residence. Review of this site demonstrates that approximately 12 acres of the site is wetland, as well as containing a small stream which enters the southwest corner of the site. Once buffers are placed upon these features only about 6 acres in the southwest part of the site north of the creek would be usable without wetland impacts. Development of this site would also require a stream crossing.



Figure 5: Wetlands on Alternative 1 Site



Figure 6: Costco Site Plan Overlain on Alternative 1 Site

Alternative 2. 20th Street SE Site Lake Stevens

This alternative site is approximately 23 acres in size and fronts on 20th Street SE in the City of Lake Stevens. This includes parcels #2905260000900, 400, 300, 200 and #2905260004900. The site contains a mix of pasture, forested area, and a single family home. This site contains three apparent wetland areas with an approximate total area of four acres. One of the wetlands is the headwater to a stream that flows to the north under 20th Street SE. There may be additional wetlands on this site but Costco did not have access to walk the property.



Figure 7: Wetland Areas on Alternative 2



Figure 8: Costco Site Plan Overlain on Alternative 2 Site

Alternative 3. Soper Road Site – Unincorporated Snohomish County

Alternative 3 is located within unincorporated Snohomish County just north of the Lake Stevens City limits. This approximately 16 acre site consists of two parcels, #059070003800, & #0590700030500. The site is entirely pasture with the exception of the single family home on the south side of the site. There are no known wetlands on this site. However, a wetland, probably Category III, is located just east of the site. In Snohomish County, this wetland would most likely have a 110-foot buffer that would encroach along the entire east side of the site. This

buffer would take up approximately 3 acres of the site reducing usable site area to 13 acres. Also, there are high-tension power lines that constrain the site; the property is located in one jurisdiction and the road network in another; and nearby residents were not supportive of development at this location.



Figure 9: Alternative 3 Site and Adjacent Wetlands



Figure 10: Costco Site Plan Overlain on Alternative 3 Site

Alternative 4. Unincorporated Snohomish County Along SR-9

Alternative includes a band of parcels along the east and west sides of SR-9 south of the Preferred Alternative site, going as far as the SR-9/SR-2 interchange. Most of this area is comprised of smaller parcels with single family homes. The large parcel to the east of the preferred site along the east side of SR-9 contains a large wetland with associated fish-bearing stream. Other larger parcels north of the SR-2 interchange are impacted by streams passing through them. The size and classification of wetlands on these parcels is unknown. Costco did not identify a parcel or assemblage for sale in the Alternative 4 search area that was of sufficient size to accommodate the proposed Costco Facility.

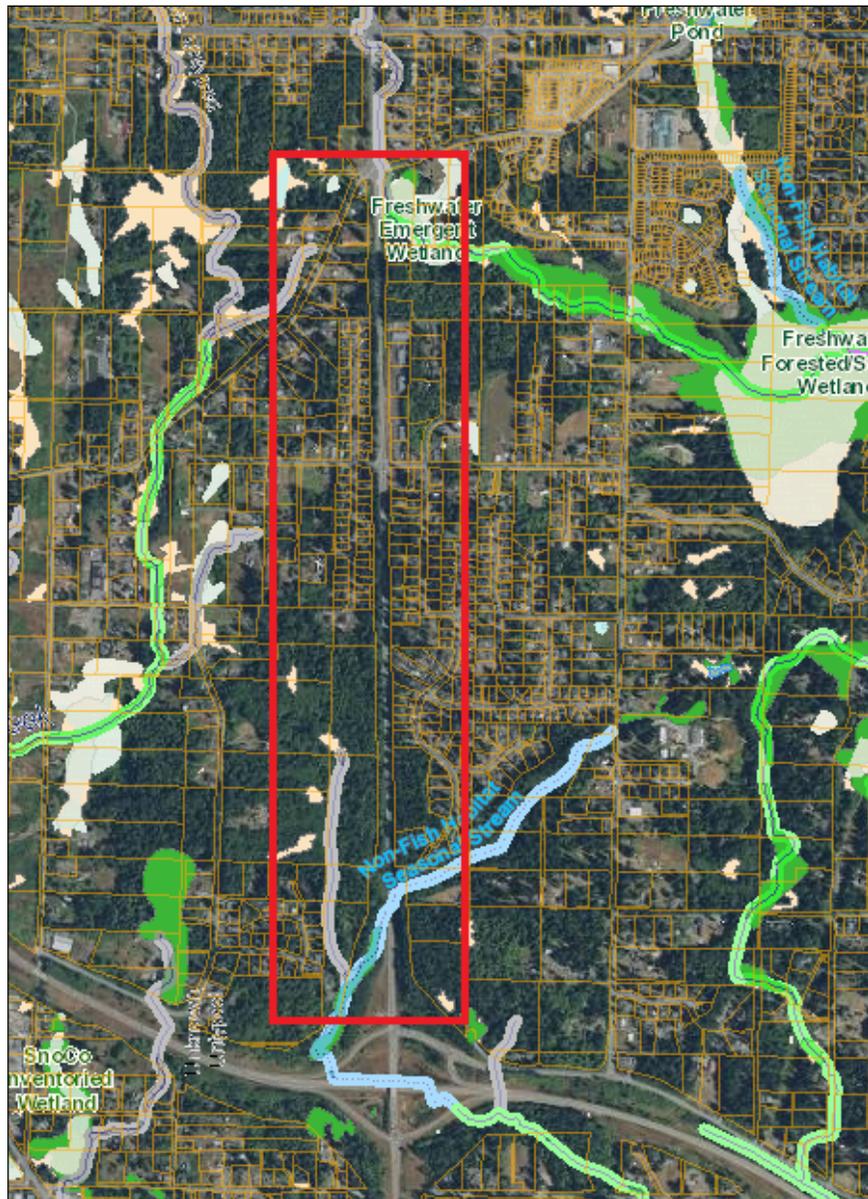


Figure 11: Costco Alternative 4 Property Search Area

Alternative 5. City of Lake Stevens Commercial Center

Alternative 5 was a search area of commercial-zoned land in the center of Lake Stevens' commercial area. The area is built out and nearly all of the remaining available land within this area is wetland. Development on these parcels would require substantial wetland fill and alteration, exceeding that of the Preferred Alternative site. Moreover, Costco did not identify any property of sufficient size available for purchase.

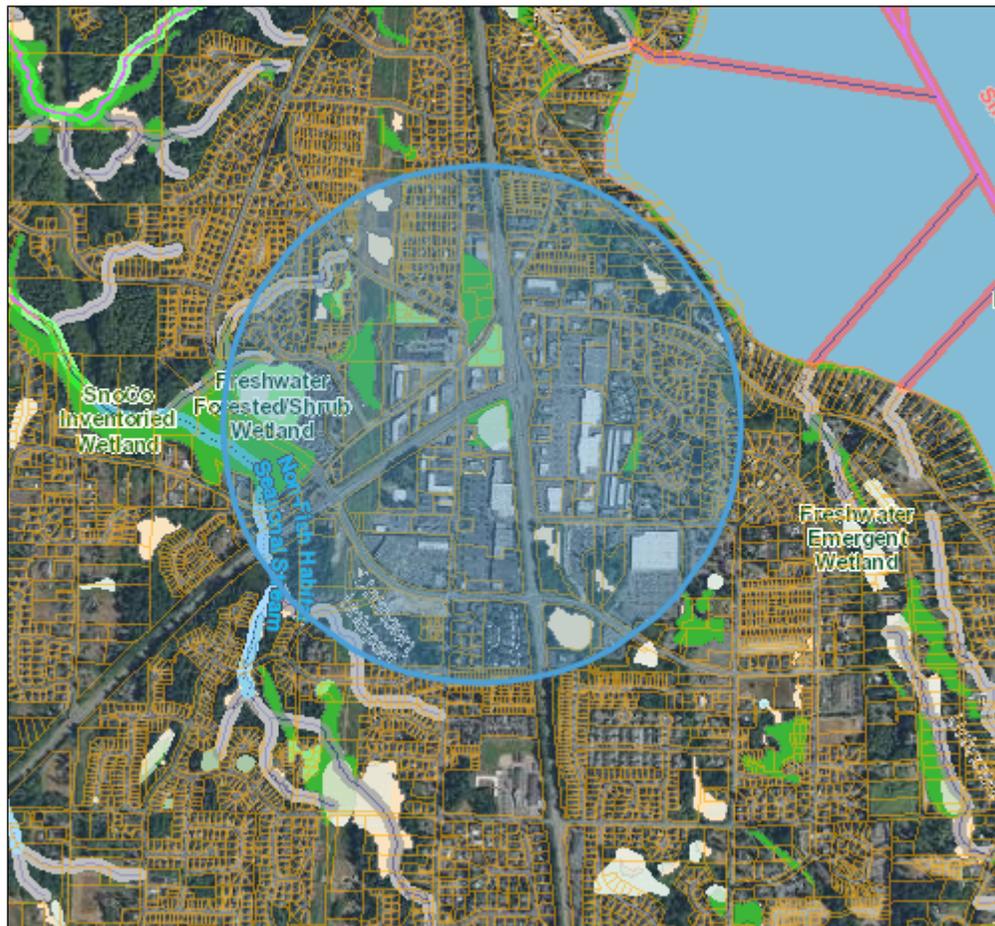


Figure 12: Costco Alternative 5 Property Search Area

Alternative 6: Preferred Alternative

1. The Preferred Alternative contains seven (7) wetlands. Approximately 1.83 acres of wetland areas would be impacted for both the development of the Costco Facility and associated road infrastructure (primarily construction of 24th Street SE). The wetlands associated with the Preferred Alternative are discussed in the Sewall Wetland Consulting, Inc., September 10, 2019 Critical Areas Report (“Sewall CAR”), which is included in the resubmittal packet along with this analysis.

The tan areas on Figure 13 below, depict areas of the wetlands that would be impacted by the proposed Costco Facility and associated Road Projects.

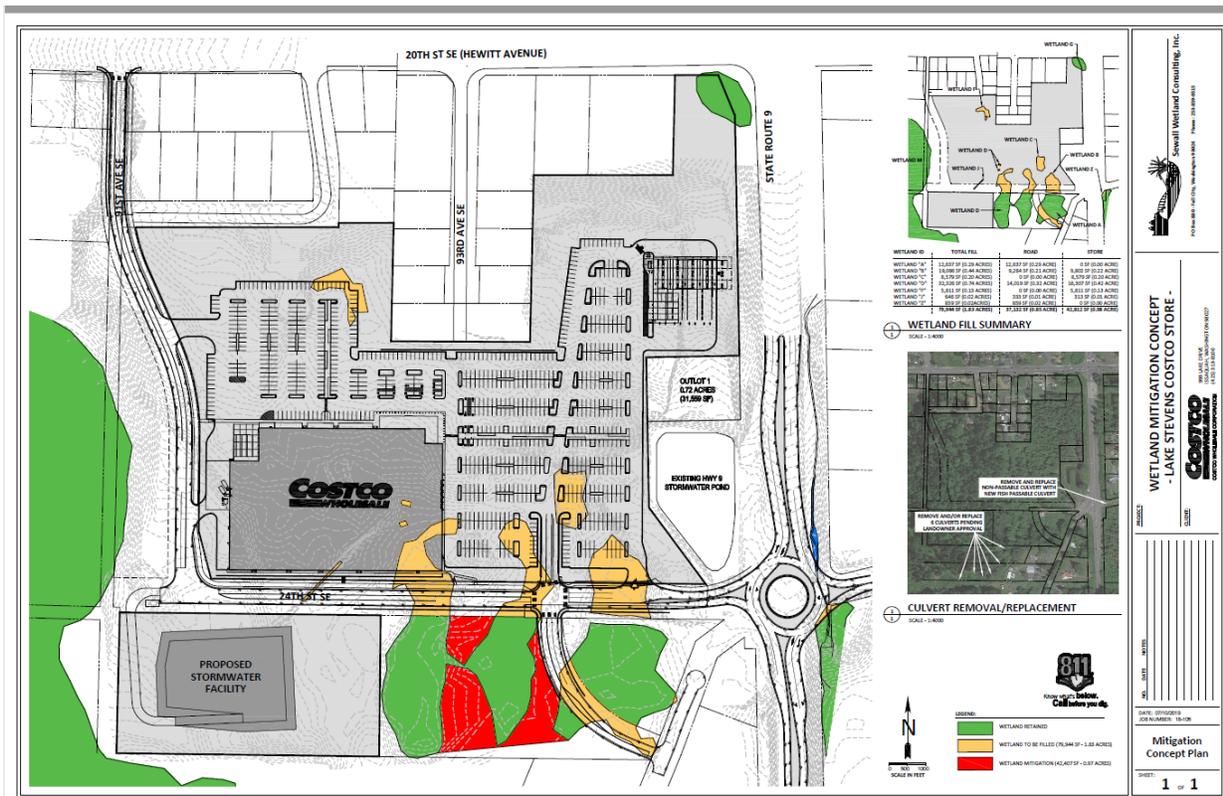


Figure 13: Site Plan for Preferred Alternative Showing Wetlands. Wetlands are depicted in green, areas to be filled are depicted in brown, and proposed wetland mitigation areas are depicted in red.

**Table C
Wetlands Located On or Near the Preferred Alternative Site**

Wetland	Water Quality	Hydrologic	Habitat	Total	Category
A	7	7	6	20	II
B	6	7	4	17	III
C	7	8	4	19	III
D	6	7	7	20	II
F	6	5	5	16	III
M	6	8	6	20	II
J	5	5	6	16	III
<u>Offsite</u>					
X	7	6	7	20	II
Z	8	7	6	21	II



Figure 14: Location of Wetlands On and Near the Preferred Alternative Site

**Table C
Summary of Wetland Impacts for Development on Preferred Alternative Site**

WETLAND ID	TOTAL WETLAND FILL	ROAD IMPACTS	STORE IMPACTS
WETLAND A #1	103 SF (0.002 ACRES)	103 SF (0.002 ACRES)	0 SF (0.00 ACRES)
WETLAND A #2	12,534 SF (0.29 ACRES)	12,534 SF (0.29 ACRES)	0 SF (0.00 ACRES)
WETLAND B	19,086 SF (0.44 ACRES)	9,284 SF (0.21 ACRES)	9,802 SF (0.22 ACRES)
WETLAND C	8,579 SF (0.20 ACRES)	0 SF (0.00 ACRES)	8,579 SF (0.20 ACRES)
WETLAND D #1	17,833 SF (0.40 ACRES)	7,798 SF (0.18 ACRES)	10,035 SF (0.23 ACRES)
WETLAND D #2	171 SF (0.004 ACRES)	0 SF (0.00 ACRES)	171 SF (0.004 ACRES)
WETLAND D #3	230 SF (0.005 ACRES)	0 SF (0.00 ACRES)	230 SF (0.005 ACRES)
WETLAND D #4	14,092 SF (0.32 ACRES)	6,221 SF (0.14 ACRES)	7,871 SF (0.18 ACRES)
WETLAND F	5,811 SF (0.13 ACRES)	0 SF (0.00 ACRES)	5,811 SF (0.13 ACRES)
WETLAND J	646 SF (0.02 ACRES)	333 SF (0.01 ACRES)	313 SF (0.01 ACRES)
WETLAND Z	1,112 SF (0.02 ACRES)	1,112 SF (0.02 ACRES)	0 SF (0.00 ACRES)
	80,197 SF (1.84 ACRES)	37,385 SF (0.85 ACRES)	42,812 SF (0.98 ACRES)

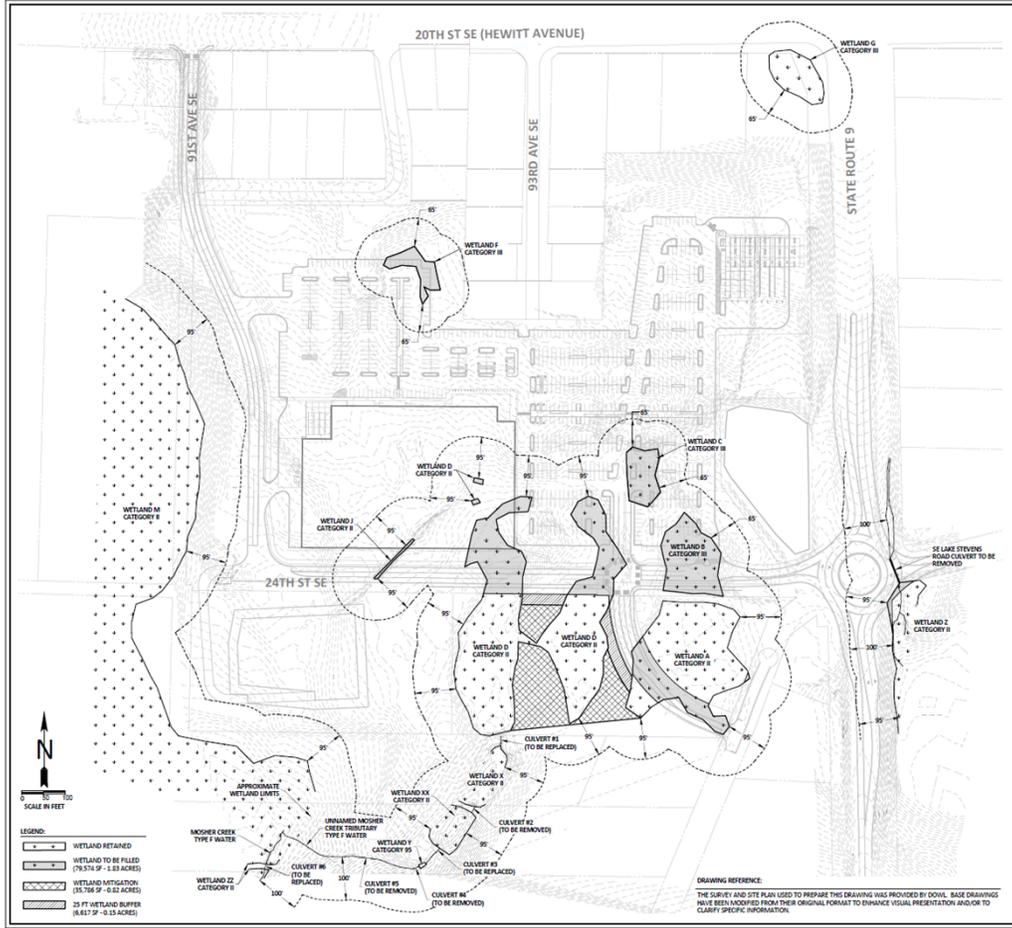


Figure 15: Proposed Stream Channel and Wetland Mitigation

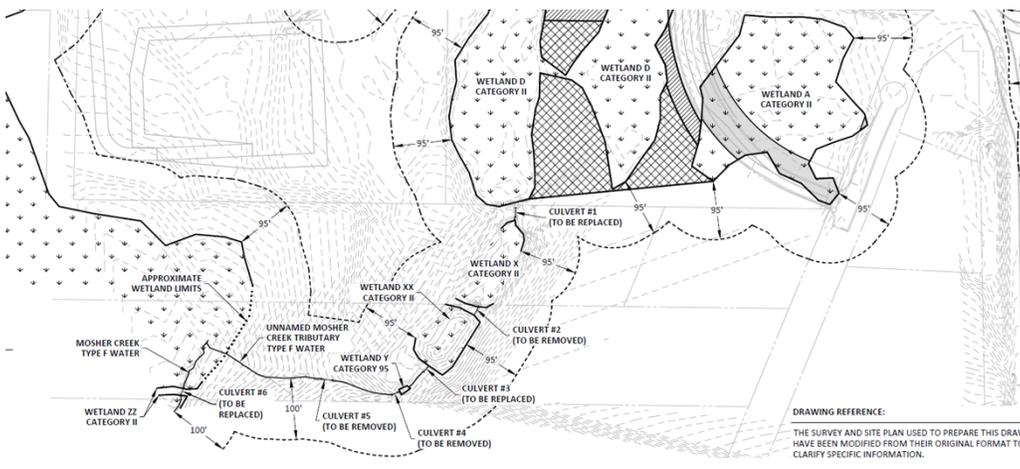


Figure 16: Enlargement of Mitigation Plan to Show Off-Site Stream Culvert Replacement

Alternatives 7 and 8: “No Action” Alternatives

The “No Action” alternatives of not constructing the project (Alternative 7) or expanding existing Costco Facilities (Alternative 8) do not meet the Project need of constructing a Costco Facility within the Lake Stevens service area. Costco has not identified a viable site with the Lake Stevens service area that does not contain any wetlands or other critical areas. Finally, there is not enough property available on the Preferred Alternative site to reconfigure the Costco Facility, roads and stormwater pond to avoid all wetland impacts.

E. Discarding of Not Practicable Alternatives

An alternative is discarded if it

- (1) is not available or
- (2) does not meet project requirements or
- (3) does not achieve the overall project purpose.

Alternative 1: Does not meet Project Requirements. Lacks sufficient developable area.

Alternative 2: Does not meet Project Requirements. Lacks sufficient developable area.

Alternative 3: Does not meet Project Requirements. Lacks sufficient developable area.

Alternative 4: Property is not available.

Alternative 5: Property is not available.

Alternative 6: Property is available, meets Project Requirements, and meets project purpose.

F. Identification of Practicable Alternatives

The Preferred Alternative is the only site identified in the Lake Stevens service area that meets the Project Requirements and allows construction of the Costco Facility.

G. Comparison of Impacts to Waters of the U.S. Across All Practicable Alternatives

Alternative 1 would require 12 acres of wetland impact to construct the Costco Facility.

Alternative 2 would require 4 acres of impact to construct the Costco Facility.

Alternative 6 (Preferred Alternative) would require 1.83 acres of wetland impact to construct the Costco Facility and associated public roads.

H. Wetland Mitigation Strategies.

Costco has also considered the following wetland mitigation strategies:

- (1) Avoidance. See above analysis regarding “No Action” and “On-Site” alternatives.
- (2) Minimization:
 - a. Location.
 - i. In developing the conceptual plans for the Costco Facility and Road Projects, the design team employed several design models to reduce and minimize impacts to wetlands. These methods include

utilization of retaining walls along the south edge of the proposed 24th Street SE road extension to reduce the footprint of wetland impact. The road width was also reduced to the minimum needed for safe and efficient vehicle passage.

- ii. Similarly, the Costco Facility's wetland impacts have been minimized in the design process. For example, the number of parking spaces has been reduced. Neither the facility size nor the required parking can be further reduced without compromising project viability.

b. **Material.**

- i. Costco is exploring using bioengineering features such as bio-swales and the dispersion of clean roof water to support wetland hydrology, particularly in the area of proposed enhancement of Wetland D.

- (3) Compensatory Mitigation. Costco is compensating for the impact by replacing, enhancing, or providing on-site wetland creation and enhancement as shown on Figure 15 above. Additionally, as shown on Figure 16 above, in coordination with the Tulalip Indian Tribe, Costco is working with the City and neighboring landowners to modify several culverts that currently block fish passage. Finally, to offset unavoidable adverse impacts which remain after implementing all appropriate and practicable avoidance and minimization measures, Costco proposes mitigating the proposed Development's wetland impacts by participating in the Snohomish County wetland mitigation bank at the requisite replacement ratios. See September 10, 2019 Revised Wetland Bank Mitigation Plan attached as and September 10, 2019 Critical Area Report, which are included in the resubmittal packet along with this analysis.

E. Construction of Road Projects

1. Project Need and Public Interest

The Costco Facility Preferred Alternative location is in the City's 20th Street SE Corridor Subarea. The 20th Street Subarea Plan was adopted by the City on September 24, 2012 (Ordinance 875). A copy of the Subarea Plan is attached as **Appendix A**. The goal of the Subarea Plan is to create an employment center that the Subarea Plan described as follows:

The 20th Street SE Corridor Subarea Plan is a key tool for the City to create an Employment Center through business park development, expanding retail areas, and increasing residential density near commercial and office areas. Specifically, the plan will create a framework to refine the area's land uses and zoning; analyze required improvements to the street network and other capital facilities; establish a vision for upgrading the aesthetic environment; and help attract new businesses and residents. The Plan's vision for employment and commercial development with higher-density housing provides the foundation for developing a planned action, establishing

regulations and standards, and identifying desired outcomes necessary to realize the overall vision for the 20th Street SE Corridor and direct its subsequent development. Additionally, the Plan will provide conceptual guidance as to the intent of subsequent regulations and actions.

Subarea Plan, p. 5.

The Road Projects meet the need identified in the Subarea Plan for multiple routes of travel with clear circulation and access to destinations within and bordering the 20th Street SE Corridor through enhanced and expanded north-south collectors and the construction of east-west circulation routes north and south of 20th Street SE. Two collectors - 91st Avenue SE and 99th Avenue SE connect the 20th Street Corridor to the Lake Stevens Center Subarea, providing alternate routes to SR-9. Proposed 24th Street SE will provide the primary east-west connector for local multi-modal transportation south of 20th Street SE. The Road Projects include an improved intersection where 24th Street SE, South Lake Stevens Road and SR-9 meet.

The construction of 24th Street SE would provide a vital link in the southern portion of the City by paralleling 20th Street SE; helping to alleviate vehicular trips off 20th Street SE. The construction of 24th Street SE and a proper intersection at SR-9 would tie into and extend S. Lake Stevens Road west to Cavalero Park and create a continuous multi-use path benefiting all of south Lake Stevens.

Figure 17 shows the location of major anticipated transportation improvements, including an intersection at South Lake Stevens Road/24th Street SE and SR-9 and the alignment of 24th Street SE as a new east-west collector.

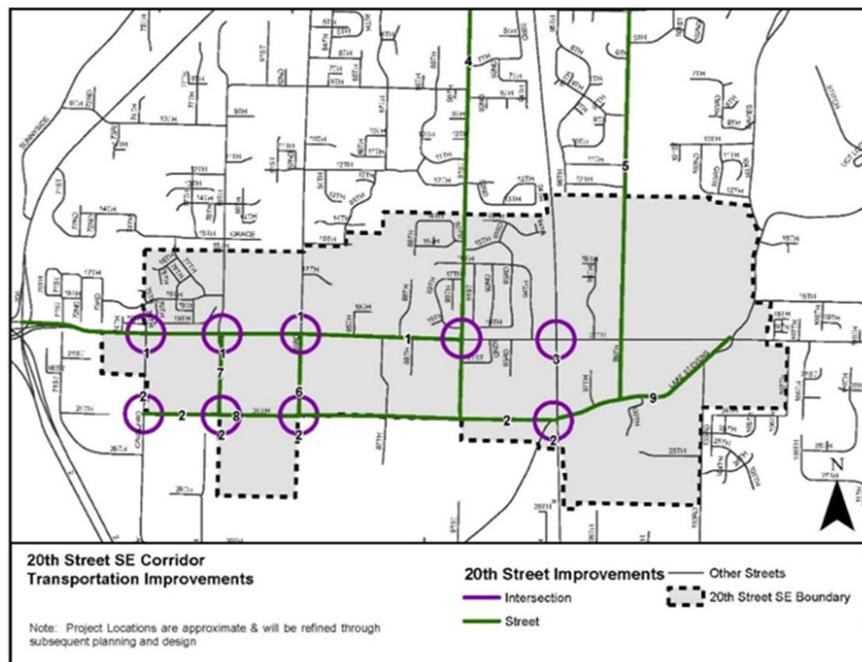


Figure 17: 20th Street SE Corridor Transportation Improvement Plan

The proposed 24th Street SE and 91st Avenue SE Road Projects provide solutions to several identified problems within the City's current transportation system. Primarily, 24th Street SE provides an east-west spine while 91st Street SE provides a north-south spine to buildout the City's road network.

The Road Projects would connect to 20th Street SE, which the City is upgrading as part of its 20th St SE Phase II Project (widening from 83rd Street SE to 91st Avenue SE), to SR-9. The 24th Street SE and 91st Avenue SE Projects will interconnect with the reconfiguration of S. Lake Stevens Road and with the future extension of 24th Street SE to the west.

24th Street SE

The addition of 24th Street SE is a logical east-west connector within the City's road network. The City currently lacks a sufficient number of major east-west connectors, putting traffic pressure on the few existing connectors in the southern half of the City; 20th Street SE, 12th Street SE, 8th Street SE, and Market Place; none of which, except 20th Street SE, fully extend from SR-9 to SR-204 (see below maps).

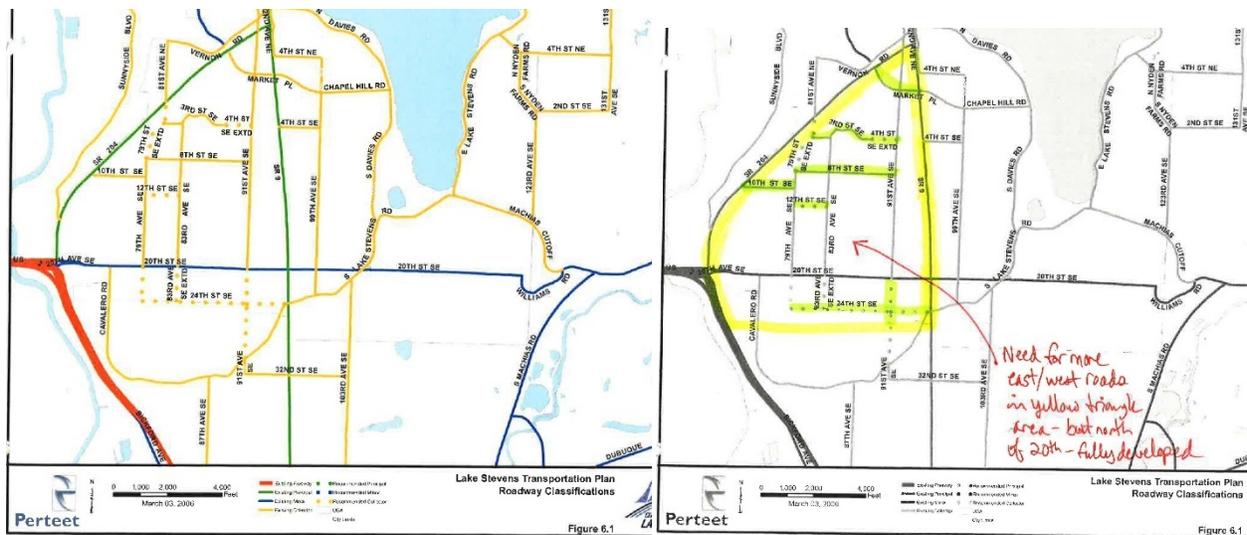


Figure 18: Need for Additional East-West Connector Roads

Proposed 24th Street SE is a much-needed parallel alternative to 20th Street SE, helping to reduce traffic congestion on 20th Street SE, some of which has been generated by recent housing development in the area and pass-by trips from outside the City limits. The possible location for 24th Street SE is constrained to the south by the current City limits, a Puget Sound Energy power transmission line, wetlands and a Mosher Creek tributary. The 24th Street SE alignment is constrained to the north by the City of Everett waterline corridor (just south of 20th Street SE). The properties north of 20th Street SE are fully developed, precluding the location of a new east-west road spine in this area.

Construction of 24th Street SE would also provide better access to Cavalero Mid-High School and Cavalero Park in the future, a major goal of the City's, via a road extension west of the proposed 91st Street SE. The proposed location for South Lake Stevens Road is a natural connection lining up with the existing South Lake Stevens Road directly east across SR-9. The reconfiguration of South Lake Stevens Road will resolve the existing situation of unsafe access to the highway.

To reduce impacts to the environment, primarily wetlands and stormwater, 24th Street SE is being constructed with retaining walls, and a narrower roadway section (by the elimination of a planter strip and sidewalk on one side) to reduce the cut and fill footprint on the adjacent wetlands.

91st Avenue SE

The addition of 91st Avenue SE will help route traffic on/off 20th Street SE through 24th Street SE to SR-9. This logical extension helps the City achieve its goal of gridded streets (as does 24th Street SE), extends the existing 91st Avenue SE to the south - continuing the north/south spine of 91st Avenue SE, and essentially loops the road and traffic through the site. 91st Avenue SE will act as one of the City's major collectors, linking the City's two primary economic centers.

To reduce impacts to the environment, primarily wetlands and stormwater, 91st Avenue SE has been realigned to the east to avoid impacts to Mosher Creek and its associated wetlands/buffers.

South Lake Stevens Road

To reduce impacts to wetlands and improve traffic safety, South Lake Stevens Road is being realigned with the new 24th St SE and the new roundabout at SR-9. The intersection of this road and 24th Street SE will align with the entrance for a commercial development. This project consists of a short road connection of approximately 490 feet in length that will connect the new 24th Street SE roadway with the existing S. Lake Stevens Road west of SR-9. The roadway will consist of one north bound and one south bound lane and no planter strips or sidewalks to minimize impacts to existing critical areas.

SR-9 Roundabout

Development of the Preferred Alternative Costco Facility site and the creation of the arterial road network for both east-west (24th Street SE) and north-south (91st Avenue SE) directions, requires a section of South Lake Stevens Road, west of SR-9, to be vacated, and realigned. Access between SR-9 and South Lake Stevens Road will be through 24th Street SE, and a new multi-lane roundabout at SR-9. The proposed improvement at SR-9 will correct the current non-conforming geometry and bring the intersection to current design standards. The roundabout design will have two-lane approaches and departures for both northbound and southbound traffic along SR-9; one lane approach and departure for both eastbound and westbound along South Lake Stevens Road, and 24th Street SE, respectively.



Figure 19: Proposed 24th Street SE and SR 9 Roundabout

24th Street SE

This project will create a new extension of 24th St SE, west of State Route 9 and south of 20th St SE for approximately 1,400 feet in length. The roadway will consist of one eastbound lane and one westbound lane with a four-foot planter strip and a ten-foot wide multi-use path on the north side. Creating a combined multi-use path reduces the roadway prism by four feet. In addition, to further reduce the wetland impacts to Wetlands B and D, retaining walls are proposed along both sides of 24th St SE.

91st Ave SE

This project will extend the existing 91st Ave SE, across 20th Street SE directly to the other side of the undeveloped terrain. This new road extension will be approximately 1,255 feet in length. The road will connect with the new 24th St SE (as described above). The roadway will consist of two - 11 ft through lanes, a 12 ft center turn lane, a four-foot-wide planter strip and a 10 ft-wide

multi-use path on the east side of the new road. By adding a horizontal curve to 91st Ave SE, this road section entirely avoids impacts to Mosher Creek and onsite wetlands.

South Lake Stevens Road

This connection is being designed with one northbound and one southbound lane and no planter strips or sidewalks to minimize impacts to Wetland A.

SR-9 Roundabout

The roundabout will have two-lane approaches and departures for both northbound and southbound along SR-9; one lane approach and departure for both eastbound and westbound along South Lake Stevens Road, and 24th Street SE, respectively. The proposed improvement at SR-9 will correct the current non-conformity geometry angle to realign the legs to intersect at a 90-degree angle. The proposed outside diameter of the roundabout is approximately 190 feet, to accommodate truck access. To minimize impact to wetland and to reduce the roadway footprint, a mountable truck apron design is planned for the center of roundabout.

The eastern leg of this improvement would include the replacement of an undersized culvert to accommodate future fish passage. The proposed roundabout will connect east and west Lake Stevens with a safe intersection for motorists and pedestrians and improve traffic operations in the area.

I. Basic Project Purpose (Water Dependency)

The Road Projects are not water dependent but must be located in the general geographic area to create the east/west and north/south connections in the 20th Street Corridor Subarea.

J. Overall Road Project Purpose and Geographic Area

During the City's planning process and environmental review for the 20th Street SE Corridor Subarea, the City analyzed three growth alternatives, including an assessment of required improvements to the street network and other capital facilities. As adopted, Subarea Plan incorporates high-urban residential growth, retail and light manufacturing uses. As such, the Plan emphasizes a complete multimodal transportation system connecting commercial, retail, civic, and residential uses in a predictable gridded road system with safe and operational roadways and intersections.

The Subarea Plan identified the need for multiple routes of travel with clear circulation and access to destinations through enhanced and expanded north-south collectors and the construction of east-west circulation routes north and south of 20th Street SE. Two collectors - 91st Avenue SE and 99th Avenue SE connect the 20th Street Corridor to the Lake Stevens Center Subarea, providing alternate routes to SR-9 to alleviate local traffic and provide direct connections between the City's two economic centers. A new 24th Street SE will provide the primary east-west connector for local vehicle access and development as a multi-use trail street for walking and biking south of 20th Street SE. The analysis anticipated the need for an improved intersection where 24th Street SE, South Lake Stevens Road and SR-9 meet.

K. Project Criteria

a. Creation of Transportation Connections.

1. The proposed road construction projects of 24th Street SE and 91st Avenue SE provide solutions to several identified problems within the City's current transportation system.
2. 24th Street SE provides an east-west spine, while 91st Avenue SE provides a north-south spine designed to meet the City's street connectivity and multimodal transportation needs.
3. The South Lake Stevens re-alignment corrects an unsafe intersection with a state highway by moving the alignment to the west.
4. The SR-9 roundabout corrects the intersection alignment at SR-9 and improves traffic circulation and mobility.

b. Practicability:

2) Logistics. Costco and the City used the following criteria in selecting the sites for the Road Projects:

- a) Encumbrances – as discussed, the location of the proposed roads (24th Street SE and 91st Avenue SE) and re-alignments (South Lake Stevens Road) are constrained by utility corridors to the north and south. There are also critical areas to the north and south and west to be avoided or minimized.
- b) Connectivity to Existing Street Grid – The Road Projects must meet the City's Engineering Design Development Standards, which includes intersection spacing, road grid connection spacing and spacing requirements for connections between neighborhoods. The Design Development Standards require that a road system have a minimum 150-foot intersection spacing. The road grid connection spacing is 800 feet. And the neighborhood connection spacing is one-half mile (2,650 feet) or less. Currently, the next east-west connection, north and parallel to 20th Street SE, is 8th Street SE, which is located more than 4,000 linear feet to the north. Further south and parallel to 20th Street SE is 32nd Street SE, which is located in Snohomish County, outside of Lake Steven City limits, approximately 4,000 linear feet to the south.
- c) Utilities – The Road Projects include several significant infrastructure improvements for stormwater, water and sewer. For example, a regional stormwater facility is proposed that would provide storage, water quality improvements and metered release into the natural environment per Department of Ecology standards. A regional sewer lift station is also proposed that would provide sanitary sewer capacity to serve the immediate 30 acres, in addition to providing sewer capacity to other residential and commercial properties. The most significant advantage to constructing a regional sewer lift station is reducing the number of septic drain fields and providing the ability for future development or replacement projects into the sanitary sewer system. The Sewall Wetland Consulting, Inc. Critical Areas Report, which accompanies this analysis, suggests that an existing drain field may be leaching into Wetland A.

- d) Constructability – based on geotechnical analysis and general engineering practices, the roads can be constructed as proposed while minimizing impacts to critical areas. Associated stormwater requirements will be located out of wetland areas. Stormwater will be treated and dispersed back into the watershed. The sewer lift station and associated pipes will be contained in the road prism and public right-of-way and will follow standard engineering practices that protect the natural environment from domestic and commercial wastewater.
- e) Access/Proximity to Target Market - Existing Retail and Residential Areas – As discussed, the Road Projects will support residential and commercial areas identified in the City’s 20th Street Corridor Subarea Plan by creating an efficient road grid. The related infrastructure improvements are designed to support the City’s comprehensive and capital plans while improving the protection of the natural environment.
- f) Cost – the Road Projects must meet the City’s financial capabilities.
- g) Existing Technology - Use of existing technology (equipment, methods, and materials) in the engineering design, construction, maintenance, and operation of the Road Projects is preferred. As mentioned, the City is looking to constrain road profiles to minimize or avoid critical areas impacts. The City will employ best engineering practices as it develops the sewer and stormwater infrastructure to serve the 20th Street Corridor.

L. Identification of Potentially Practicable Alternatives (On-Site and Off-Site) Within Geographic Area

The following is a list of the alternatives looked at for Road Projects including a “No Action” alternative:

A. City Preferred Alternative for the Road Project:

- The City’s preferred alternative for the proposed road extensions and improvements is to develop the road segments as proposed with the most direct and safe configurations for pedestrian and motorized vehicles.

B. On-Site Alternative(s):

- 24th Street SE – The City considered moving 24th Street SE to the north. This alignment is problematic because the geometry would create substandard curves of 24th Street SE (an arterial) and it would no longer intersect with SR-9 at a standard intersection angle. Also, the topography of the site drops significantly if 24th Street SE were to be realigned to the north, which would require the construction of large walls, significant fills, and additional stormwater infrastructure. Shifting 24th Street SE to the north would still result in permanent impacts to Wetlands B and D and possibly C.
- 91st Ave SE – the 91st Avenue SE alignment as designed avoids all onsite impacts to wetlands and streams.
- South Lake Stevens Road – the City has considered moving the alignment of south Lake Stevens Road further west in between Wetlands A and D. However, this option would not eliminate permanent impacts to Wetland A. Moving this alignment would

only shift the impact to Wetland D from Wetland A, without reducing the total wetland impact footprint. If the road curvature would be reduced, it would impact the vehicular turning ability. The proposed mitigation strategy to connect and enhance Wetlands D and A in this area will mitigate for the proposed alignment. The City is coordinating with Snohomish County on the final re-alignment of South Lake Stevens Road.

C. Off-Site Alternative(s):

- There are no offsite alternatives for the Road Projects as they are connecting existing road linkages. There are also existing encumbrances that limit the potential alignments of 24th Street SE and South Lake Stevens including water and power utility corridors to the north and south. The Road Projects minimize direct wetland impacts to the extent possible while maintaining operational and safety factors.

M. Evaluation of Alternatives Based on Project Criteria

1) City Preferred Alternative for Road Project

a. Availability. The proposed road alignments are almost entirely within existing right-of-way or other public ownership.

b. Practicability

1. Logistics. Costco and the City evaluated this alternative based on project criteria described above, including the City's 20th Street Corridor Plan, the existing road locations, the potential impacts to the natural environment, existing encumbrances, available right-of-way, and the City's road design standards.
2. Existing Technology. The City will employ best management and engineering standards in the design of roads and utilities to ensure constructability and minimization of impacts to the environment.

2) "No Action" Alternative

The action alternative would not meet the Road Project need of providing connectivity and improved utilities in the 20th Street Corridor Subarea to serve existing residents and foster future economic development. It is also not practical to site the Road Projects in upland areas because of road alignment and geometry constraints. The Road Projects have been designed to avoid and minimize direct wetland impacts to the extent feasible.

N. Identification of Practicable Alternatives

The Preferred Alternative for the Road Projects represents the best designs and locations for proposed improvements to meet the Road Projects' need while minimizing wetland impacts.

Comparison of Impacts to Waters of the U.S. Across All Practicable Alternatives

Adding a horizontal curve to 91st Avenue SE avoids any impact to Mosher Creek and its buffer.

The needs of road grid system and the SR-9 intersection geometry dictate the location and alignment of 24th Street SE. The 24th Street SE roadway footprint will have approximately 20,500 sf (0.47 acres) of direct wetland impacts.

Compensatory Mitigation. To offset unavoidable adverse impacts which remain after implementing all appropriate and practicable avoidance and minimization measures, the City proposes fully mitigating the Road Projects' wetland impacts by participating with Costco in the on-site wetland mitigation, wetland banking and off-site culvert enhancement projects.

3) Conclusion of Alternatives Analysis

After careful consideration of possible alternative locations for a Costco Facility in the Lake Stevens service area, the Preferred Alternative is the only viable site for the Costco Facility as it meets the size, zoning, and location requirements. While some unavoidable wetland impacts will occur with development on the Preferred Alternative site, these impacts have been minimized to the extent feasible, are able to be mitigated, and are less than the wetland and stream impacts associated with similar development at other alternatives sites. As such, Costco's Preferred Alternative is the least environmentally damaging practicable alternative.

Additionally, the preferred alternative for the City's Road Project meet the goals of the City's 20th Street SE Subarea Plan and create needed east/west and north/south multi-modal transportation connections that serve the public interest. Again, while some wetland impacts are unavoidable, these have been minimized to the extent practicable and the proposed configuration of the Road Projects is the least environmentally damaging practicable alternative.

If you have any questions please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com.

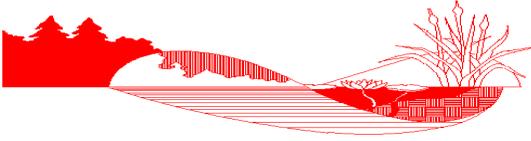
Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetland Ecologist

APPENDIX A

CITY OF LAKE STEVENS 20TH STREET SE SUBAREA PLAN



FEBRUARY 10, 2020

VIA OVERNIGHT MAIL

Department of the Army
Regulatory Branch
Attn: Katie Heard
PO Box 3755
Seattle, Washington 98124

Re: [Revised] Alternatives Analysis for Costco Wholesale, Lake Stevens
Reference No. NWS-2019-175

Dear Katie,

This Alternatives Analysis responds to question No. 5 in your April 8, 2019 letter and addresses the proposed construction of a Costco Wholesale, Inc. (“Costco”) membership sales facility (“Costco Facility”) in the City of Lake Stevens, Washington (“City”). The development proposal includes construction of an approximately 160,000 square foot Costco Facility and the construction of public infrastructure identified in the City’s 20th Street Corridor Sub-Area Plan, which is also required, in part, to address anticipated traffic and stormwater impacts of the proposed Costco Facility. This public infrastructure includes improvements to 24th Street SE, 91st Avenue SE and a new roundabout on State Route 9 (collectively “Road Projects”). Supporting documentation for this analysis are attached in Appendices A-D.

Because the Costco Facility and Road Projects will impact jurisdictional wetlands, the purpose and need for each element of the overall Project is discussed in this Alternatives Analysis.

A. Project Need

Costco owns and operates hundreds of facilities in the United States and internationally. These facilities provide for the sale of goods and services to Costco members. In Washington, the prototypical Costco facility is approximately 160,000 square feet with 750 to 950 parking spaces located at grade adjacent to the Costco Facility. Approximately 15 to 20 developable acres of land are required to accommodate a Costco’s proposed development. Costco estimates that approximately 42,000 members (individuals and businesses) are located in the service area that would be served by the proposed Lake Stevens location.

The Road Projects that are included in the development proposal are intended to address the problem of meeting local demand for large retail shopping areas and related infrastructure by developing a Costco Facility and associated roads and stormwater infrastructure within the Lake

Stevens service area and Lake Stevens 20th Street SE Corridor Subarea (“20th Street SE Subarea”). Development of the Costco Facility in Lake Stevens will help the City achieve its Growth Management Act (Ch. 36.70A RCW) employment targets for 2035 and will fulfill the City’s growth strategy for development of a local commercial center in the 20th Street SE Subarea. A copy of the City’s 20th Street SE Subarea Plan is attached as **Appendix A**.

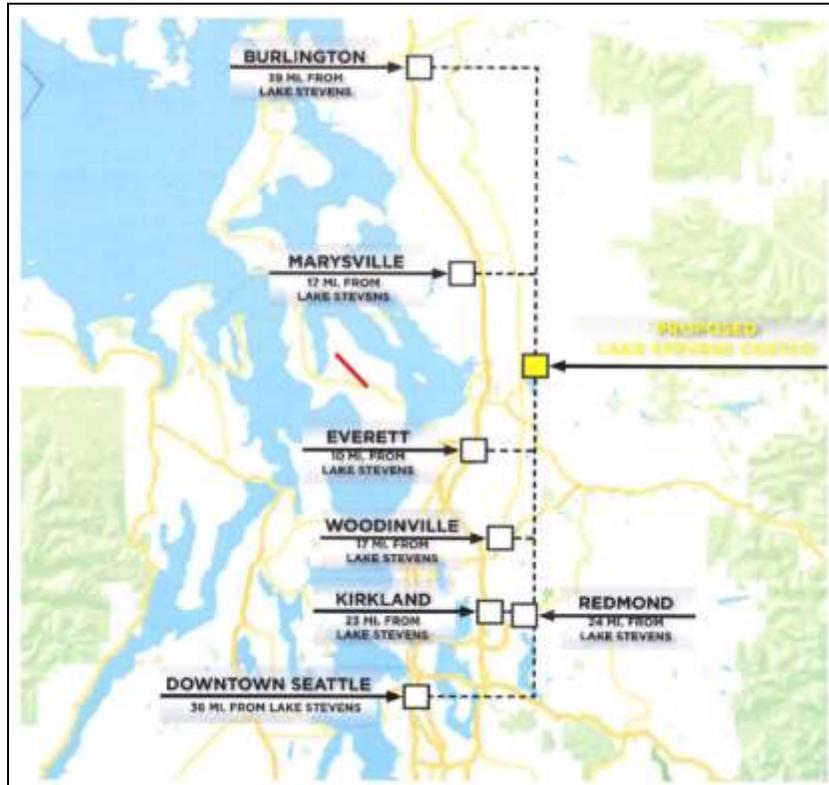


Figure 1: Current Costco Facility Locations And Proposed Lake Stevens Location

Figure 1 shows that residents within the Lake Stevens service area lack sufficient access to existing Costco facilities within a reasonable drive time. Costco’s population growth data demonstrates that the population in the Lake Stevens service area will grow around 10% (or 4-17% depending on a particular segment) in the years 2018-2023. With the population growth, the demand for goods and services sold by Costco will grow as well.

**Table A
Existing Costco Location Characteristics for Facilities Near Proposed Facility Site**

Facility	Site Size	Store Size	Parking	Miles from Proposed Facility
Everett	21.0 acres	156,206 sq. ft.	801 stalls	10 miles
Marysville	15.2 acres	149,092 sq. ft.	703 stalls	16 miles
Lynnwood	15.4 acres	155,710 sq. ft.	703 stalls	16 miles
Woodinville ¹	14.7 acres	148,835 sq. ft.	692 stalls	17 miles

¹ The Woodinville Costco Facility is considered undersized and under-parked based on Costco’s current prototypical design.

1. Need for a Costco Facility in the Lake Stevens Service Area

In selecting the Preferred Alternative Lake Stevens site, Costco and its consultants reviewed the demographic and population information for Lake Stevens and surrounding areas of incorporated Snohomish County. This information demonstrated that the Lake Stevens area was underserved, but that potential development sites were limited by both the lack of suitable large land assemblages and geographic constraints, as sites located too far to either the north or south would cannibalize sales from existing Costco facilities in Marysville and Woodinville, and sites located to the east lacked sufficient population density to support the proposed Costco Facility.



Figure 2: Search Area for Costco Lake Stevens Facility

Costco narrowed potential site selection to the area inside the yellow rectangle on Figure 2. As described below, Costco looked at actual properties, and Costco also explored possible assemblages in areas where there were no large parcels available for sale.

2. Project Requirements for a Costco Facility

The following criteria were employed in evaluating the alternative sites.

- Flat site (approximately 2% finished grade) with approximately 15-20 developable acres necessary to accommodate a 160,000 square foot building, 750-950 parking spaces and a 3-5 island fuel facility;

- Property or assemblage available for purchase;
- Reasonable site development or redevelopment costs;
- Currently zoned for commercial uses or easily rezoned to such zoning;
- Property located in immediate proximity to a major roadway with sufficient roadway infrastructure to handle projected traffic volumes;
- Density of members and businesses within the particular service area; and
- Available public infrastructure and utility connections.

3. Urban Growth Area

Pursuant to Ch. 36.70A RCW, Washington’s Growth Management Act (“GMA”) development of a Costco Facility requires urban level services that are typically found inside a GMA Urban Growth Area (“UGA”). The Lake Stevens UGA (purple boundary) and the location of Costco’s Preferred Alternative are shown on Figure 3.

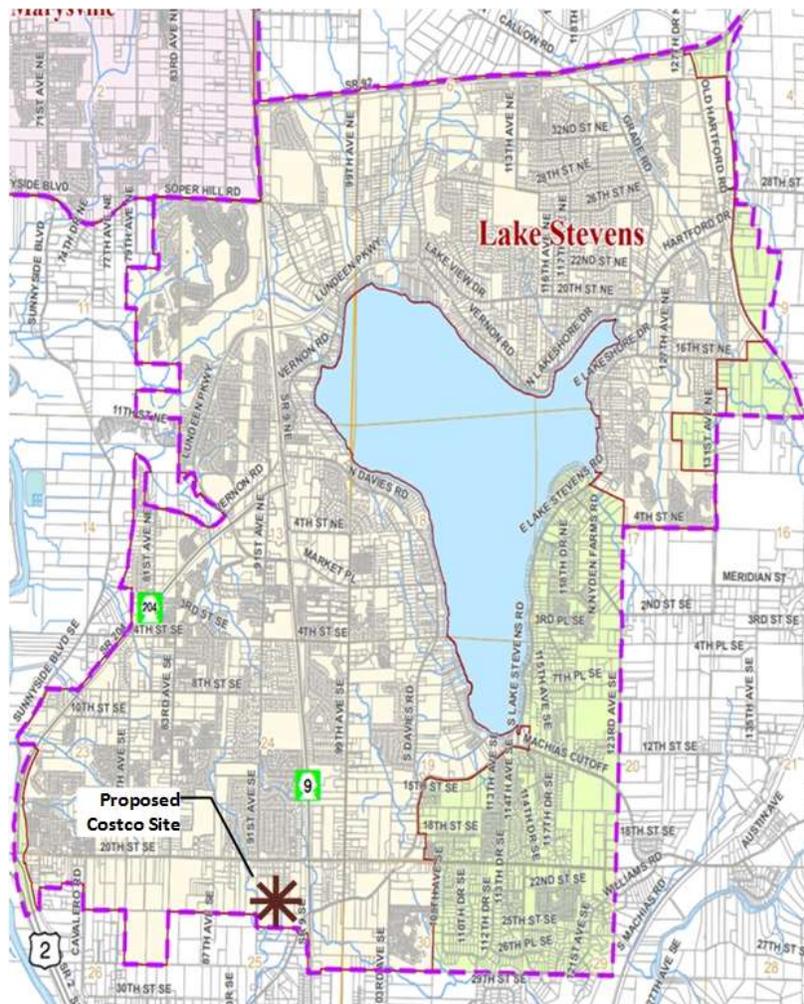


Figure 3: City of Lake Stevens Urban Growth Area and Location of Costco Preferred Alternative

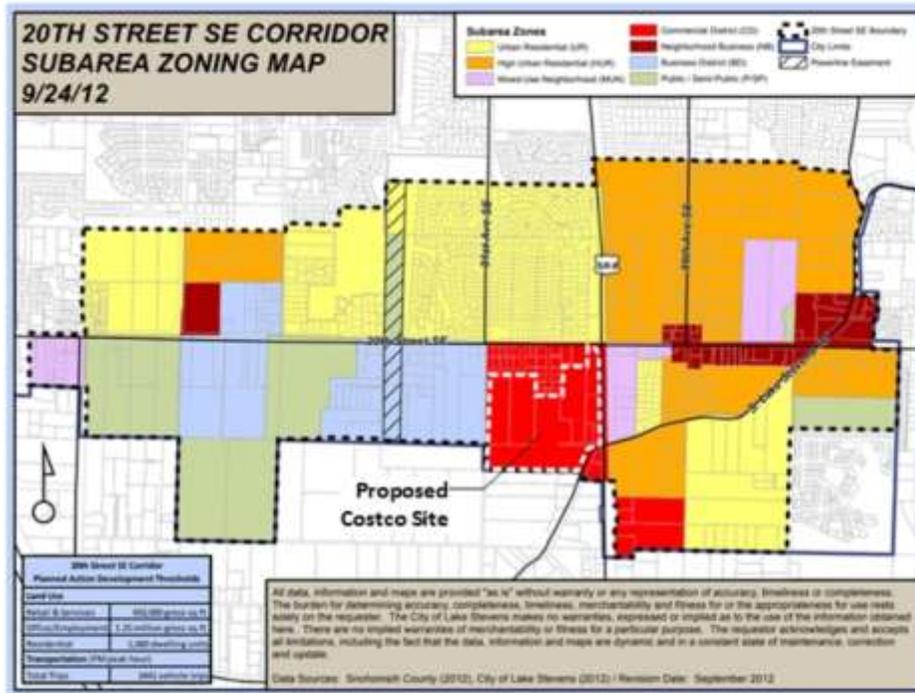


Figure 4: Lake Stevens 20th Street SE Subarea Zoning and Location of Costco Preferred Alternative

Figure 4 depicts the City’s designated 20th Street SE Subarea and shows that the zoning for Costco’s Preferred Alternative property is zoned “Commercial District”, which accommodates Costco’s proposed use.

B. Analysis of Project and Alternatives Under Corps’ Criteria.

1. Basic Project Purpose (Water Dependency)

The project purpose is to provide a Costco Facility in the Lake Stevens service area. A Costco Facility does not need to be located in an aquatic environment to meet its purpose and is therefore not water dependent. However, as discussed below, there is no alternative site within the Lake Stevens service area that meets the Costco Facility requirements without wetland impacts.

2. Overall Project Purpose and Geographic Area

The project purpose is to develop a Costco Facility in the Lake Stevens service area, together with necessary parking, roads, and stormwater infrastructure.

3. Project Requirements

a. Land Availability. In the Lake Stevens service area, which includes other jurisdictions, there are limited parcels or assemblages large enough to accommodate a Costco Facility. Costco does not currently own any property in the Lake Stevens service area. Therefore, Costco looked at properties, and possible assemblages, that were of

sufficient size and were commercially zoned, or perceived to be easily rezoned for commercial uses, that were available for purchase.

b. Practicality

(1) Site Size. Minimum and maximum acreage necessary for construction of the project.

- (i) A Costco Facility requires a developable site of approximately 15 to 20 acres to accommodate approximately 750-950 parking stalls and a gasoline fueling facility with 3-5 fueling islands. Because a Costco Facility functions as both point of sale for member purchases and to maintain an inventory, it requires an approximately 160,000 square foot (approximately 3.6 acre) horizontal floorplate.
- (ii) The site must be large enough to accommodate at-grade parking.
- (iii) Site configuration: Costco prefers a rectangular site, but a square site could also be workable.
- (iv) To consider a wider range of alternatives, in this case, Costco reviewed sites with sizes that ranged from approximately 17 acres to 30 acres.

(2) Topography.

- (v) Finished grades/slopes across the site cannot exceed 2% (maximum) per Costco standard and ADA requirements.

(3) Utilities. Ability to connect to urban-level utilities (pass/fail).

(4) Access/Proximity to Target Market - Existing Costco Facilities and Residential Developments.

- (vi) Minimal distance from existing Costco facilities is: 5-10 miles depending on density and transportation infrastructure.
- (vii) Maximum distance from high-density residential areas: 10 miles
- (viii) The site needs to serve underserved areas of Lake Stevens, Snohomish, Granite Falls, Monroe, and surrounding areas of unincorporated Snohomish County including along the SR-9 and SR-2 corridors.
- (ix) The site needs to provide traffic and parking relief for existing Costco facilities in Woodinville, Everett and Marysville, while not cannibalizing those facilities to a level that compromises their operations. The site needs to reduce drive times and provide increased efficiency of the shopping experience.
- (x) A site would be rated highly if directly adjacent to highway so passing motorists had unobstructed view (visibility).
- (xi) A site would be rated highly if it is within a defined distance of existing housing development or residential density necessary to

support the desired customer base.

(5) Access/Proximity to Major Arterial Roads.

- (xii) Minimal distance from high-traffic roads and SR 9 in particular is: frontage along a major arterial is required.
- (xiii) This criterion is focused on the Costco Facility's need for transportation infrastructure to accommodate incoming and outgoing member visits.
- (xiv) Costco needs access to highway for trucking/supply purposes; sites adjacent to SR-9, Highway 2, and I-5 simplify logistics.

(6) Ability to be Operational by 2021.

- (xv) A lengthy permitting process may make the project unfeasible.

(7) Zoning.

- (xvi) The site must be appropriately zoned commercial and allow gas sales, retail sales, and tire installation facilities. The site must be within a City limits or within an urban growth area (UGA).
- (xvii) If the site is not properly zoned, the procedures required in a rezone request are considered as to cost, existing technology, and logistics.

(8) Constraints.

- (xviii) Acquisition, rezoning (if needed), construction, mitigation, maintenance, and operation of the new store must not result in excessive capital, operating and maintenance expenditures that put the operations at unacceptably elevated financial risk. Overall cost of project construction can be used as a site selection screening criteria.

(9) Existing Technology. Use of existing technology (equipment, methods, and materials) in the engineering design, construction, maintenance, and operation of the Costco Facility is preferred. Design alternatives that are unconventional and unproven in the regional market are less favorable.

4. Identification of Potentially Practicable Alternatives (On-Site and Off-Site) Within Geographic Area

The following alternatives were analyzed for this Project:

Alternative 1: City of Snohomish Bickford Avenue Site. This Alternative is a 30-acre site that includes approximately 12 acres of wetlands and a small stream. After buffers are considered, only about 6 acres of the site remain developable, which does not meet Project Requirement for minimum available developable area.

Alternative 2: Lake Stevens 20th Street SE Site. This alternative site is approximately 23 acres in size and fronts on 20th Street SE in the City of Lake Stevens. This site contains 3 apparent wetland areas with an approximate total area of 4 acres, one of which is a headwater to a stream that flows to the north under 20th Street SE. Once buffers were added to the wetlands, only about 5 acres remained developable and this land was broken up by the dispersion of the three wetlands. Thus, the site does not meet the Project Requirement for available minimum available developable area.

Alternative 3: Snohomish County Soper Road Site. This alternative site is located within unincorporated Snohomish County just north of the Lake Stevens City limits. This site is approximately 16 acres. There are no wetlands on the site, but a probable Category III wetland is located just east of the site. In Snohomish County, this wetland would most likely have a 110' buffer that would encroach along the entire east side of the site. This buffer would take up approximately 3 acres of the site reducing usable site area to 13 acres, which does not meet the Project Requirement for minimum available developable area.

Alternative 4: Snohomish County SR-9 Site. Costco looked in this area, but did not identify a parcel or potential assemblage of sufficient size for construction of the proposed Costco Facility. In addition, the zoning in this area did not support the proposed Costco Facility.

Alternative 5: Lake Stevens Commercial Center Site. This area is already built out with a variety of commercial and residential uses. Costco did not identify a parcel or potential assemblage of sufficient size for construction of the proposed Costco Facility.

Alternative 6: Preferred Alternative. As discussed below, the Preferred Alternative meets all of the Project criteria. The assemblage is available for purchase; it is commercially zoned; it is located in the Lake Stevens service area; it is proximate to major arterials; and it is of sufficient size to accommodate the Costco Facility and related infrastructure and mitigation.

Alternative 7: Enlarge Existing Costco Locations. This Alternative does not meet the Project Requirement of bringing a Costco Facility to the Lake Stevens service area to serve members that currently must drive to Marysville, Woodinville or Everett.

Alternative 8: No Action Alternative. This Alternative does not meet the Project Requirement of bringing a Costco Facility to the Lake Stevens service area to serve members that currently must drive to Marysville, Woodinville or Everett.

5. Evaluation of Alternatives Based on Project Requirements

A. Applicant's Preferred Alternative

a. Availability. This site is available for Costco to purchase.

b. Practicability

(1) Site Size. This site meets the criteria of sufficient size. It is approximately 15 acres, which is sufficient to construct the main building, fuel center, and required parking.

(2) Topography. Grades/slopes across the site can be graded so that they do not exceed 2%.

(3) Utilities. This site has the ability to connect to urban-level utilities. Most utilities are either adjacent to or easily extended to this proposed location.

(4) Access/Proximity to Target Market - Existing Costco Warehouses and Residential Developments.

- This site satisfies minimal distance from existing Costco warehouses criterion.
- This site satisfies maximum distance from residential developments criterion.
- The site would serve an underserved area of Lake Stevens and Monroe and surrounding communities that use SR-9.
- The site would provide traffic and parking relief for existing Costco warehouses in Woodinville, Everett and Marysville, without unduly cannibalizing sales at these locations. This site would reduce drive times and provide increased efficiency of the shopping experience for Costco members.
- After the planned road improvements in the area, the road network at this site will be able to handle the Costco traffic.

(5) Access/Proximity to at least One Major Arterial Road.

- This site satisfies minimal distance from high-traffic roads and SR 9 criterion.
- This site is bounded to the south by an existing ROW for 24th Street SE. The ROW for 91st Ave SE is an approved transportation improvement for the City of Lake Stevens.

(6) Ability to be Operational by 2020.

- This site has highest probability to have the project operational in 2020 by avoiding lengthy rezoning process and a lengthy permitting process.

(7) Zoning.

- This site satisfies this criteria because it is zoned Commercial District (CD), which zone allows gas sales, retail sales, and tire installation facilities. The site is within the City of Lake Stevens Urban Growth Area. This site is specifically identified in the City’s subarea plan as ideal for a retail center, and all required utility connections are readily available.
- For this site, there is no need to consider the cost, existing technology, and logistics of the procedures required in a rezone request.

(8) Constraints.

- The site has optimal zoning and location for Costco’s proposed development.

(9) Existing Technology. The Preferred Alternative can be developed with Costco’s prototypical building design, parking lot layout and fueling station.

B. On-Site Alternative(s)

Overview of Proposed Mitigation and Avoidance:

Costco could not locate its Project entirely in the uplands on the Preferred Alternative parcel. Costco explored the following on-site alternatives:

- 1. Total avoidance.** See below regarding “No Action” Alternative.
- 2. Full mitigation on-site.** Full on-site mitigation is not possible.
- 3. Relocation of part of the wetland to retain it on-site.** Partial on-site mitigation is possible and is being proposed. Specifically, the applicant proposes wetland creation in upland areas near existing Wetland D as shown on the Mitigation Plan, Sheet 2. The Sewall Consulting, Inc. Wetland Mitigation Plan is included in the resubmittal packet along with this analysis.
- 4. Partial avoidance in increments.** The Costco Facility and Road Projects have been designed to maximize avoidance while still allowing development that meets the Project Requirements. Additionally, the project has been redesigned to avoid impacts to Category III Wetland F in the northern portion of the site.
- 5. Moving the building to the north portions of the site.**
 - (1) The northern portions of the site are the steepest and least developable.
 - (2) Moving the building to the north would impact Wetland F.

- (3) Because of the shape of the property, there would not be sufficient property to support the Costco Facility if the on-site wetlands were totally avoided. Also, there is a significant rise in grade on the northern portion of the site.
- (4) Adjacent properties to the north are currently developed with residential uses. The proposed on-site location of the Costco Facility provides a buffer for these residential uses. Furthermore, regardless of where the Costco Facility is located on the property, it still would require access to 24th Street, which is being constructed to the south.

6. Multi-level parking structure.

- (1) A Multi-level parking lot is not desirable because these structures require members to circulate vertically with heavy loads of purchased items, which are often bulky or fragile. The Project layout, which includes a surface parking field, is consistent with all Costco facilities in Washington. Additionally, a multi-level parking structure would require more soil amendment in order to hold the heavier structure and would significantly increase Project costs above a level that is economically justified. The cost would be prohibitive and the Project would be unbuildable.
- (2) Costco's business model relies in significant part on selling products in bulk. This fundamental premise drives all aspects of Costco facility development. For example, Costco facilities are designed with a maximum slope of 2% to safely accommodate the oversized carts or flat-bed carts that members use while shopping. The carts are sized to accommodate a large volume of goods. The parking field grade mitigates for the potential safety issue that could occur if heavy carts were operated on steeper grades. For multi-level parking structures, parking decks with slopes over 2% are common, which creates a potential safety issue. Also, moving large carts between floors becomes a significant issue.
- (3) Costco does operate some facilities that have multi-level parking facilities, but only in very dense urban markets where there is limited land available to accommodate a traditional parking field. Further, in dense urban markets, members shop differently. Typically, urban members live in close proximity to the store and make more smaller trips compared to suburban markets where more infrequent large trips predominate.
- (4) To foster development in the 20th Street SE Corridor Subarea, the City has encouraged public/private partnership and has committed funds to facilitate the construction of new roads and stormwater system, and to otherwise further enhance existing transportation and utility infrastructure in this area. All these improvements are to support and encourage new development, both commercial and residential, in the 20th Street Corridor Subarea. The City's goal is to develop this Corridor to provide new jobs and residential units that would be close to potential new job creation sites.

C. Off-Site Alternative(s)

**Table B
Summary of Possible Alternatives**

Site	Site Size	Wetland Stream	Developable Land	Site Constraints	Meets Project Need
Alt 1: Bickford Avenue	30 acres	12 acres of wetland and one stream	6 acres	Wetlands and stream	No. Developable area is too small.
Alt 2: 20 th Street SE	23 acres	4 acres of wetland and stream headwater	5 acres	Irregular shape and large wetland area	No. Wetland and irregular parcel shape. Developable area is too small.
Alt 3: Soper Road	16 acres	Wetland located just off-site with buffer on-site Stream crossing required	13 acres	Wetland buffer from off-site wetland and stream crossing	No. Developable area is too small.
Alt 4: SR 9	No available site identified	Abuts large wetland with fish-bearing stream	None identified	No parcel or assemblage available for purchase	No. No available property.
Alt 5: LS Commercial Center	No available site identified	Several large wetlands and streams	None identified	Require significant wetland fill	No. No available property.
Alt 6: Preferred Alternative	15 acres	1.83 acres of wetland impact	Approx. 15 acres assuming wetland fill	Some wetland impacts mitigation required	Yes. Site size and location are appropriate, development meeting the project need is possible with mitigated wetland fill
Alt 7: No Action	N/A	N/A	N/A	N/A	No. Does not meet need in identified service area.

Alt 8: Enlarge Existing Costco Facilities	N/A	N/A	N/A	N/A	No. Does not meet need in identified service area.
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D. Discussion of Alternatives

Alternative 1. City of Snohomish Bickford Avenue Site

This alternative site is located in the City of Snohomish and is approximately 30 acres in size. The site is located along the west side of Bickford Drive and includes Parcels #00448800002001, #2002, #1900, #2805000200600 & #28050100202500. The site is a mix of forested and agricultural land with a single-family residence. Review of this site revealed that approximately 12 acres of the site is wetland, and it contains a small stream, which enters the southwest corner of the site. Once buffers are placed upon these features only about 6 acres in the southwest part of the site north of the creek would be usable without wetland impacts. This would require a stream crossing as well.



Figure 5: Wetlands on Alternative 1 Site



Figure 6: Costco Site Plan Overlay on Alternative 1 Site

Alternative 2. 20th Street SE Site Lake Stevens

This alternative site is approximately 23 acres in size and fronts on 20th Street SE in the City of Lake Stevens. This includes parcels #2905260000900, 400, 300, 200 and #2905260004900. The site contains a mix of pasture, forested area, and a single family home. This site contains 3 apparent wetland areas with an approximate total area of 4 acres, one of which is a headwater to a stream that flows to the north under 20th Street SE. There may be additional wetlands on this site but Costco did not have access to walk the property.



Figure 7: Wetland Areas on Alternative 2



Figure 8: Costco Site Plan Overlain on Alternative 2 Site

Alternative 3. Soper Road Site – Unincorporated Snohomish County

This alternative site is located within unincorporated Snohomish County just north of the Lake Stevens City limits. This approximately 16 acre site consists of two parcels, #059070003800, & #0590700030500. The site is entirely pasture with the exception of the single family home on the south side of the site. There are no known wetlands on this site. However, a wetland, probably Category III, is located just east of the site. In Snohomish County, this wetland would most likely have a 110-foot buffer that would encroach along the entire east side of the site. This buffer would take up approximately 3 acres of the site reducing usable site area to 13 acres. Also, there are high-tension power lines that constrain the site; the property is located in one jurisdiction and the road network in another; and nearby residents were not supportive of development at this location.



Figure 9: Alternative 3 Site and Adjacent Wetlands



Figure 10: Costco Site Plan Overlain on Alternative 3 Site

Alternative 4. Unincorporated Snohomish County Along SR-9

This alternative site/area includes a band of parcels along the east and west sides of SR-9 south of the preferred site, going as far as the SR-9/SR-2 interchange. Most of this area is comprised of smaller parcels with single family homes. The large parcel to the east of the preferred site along the east side of SR-9 contains a large wetland with associated fish bearing stream. Other larger parcels north of the SR-2 interchange are impacted by streams passing through them. The amount of wetlands on these parcels is unknown. Costco did not identify a parcel or assemblage for sale that was of sufficient size to accommodate a Costco Facility.

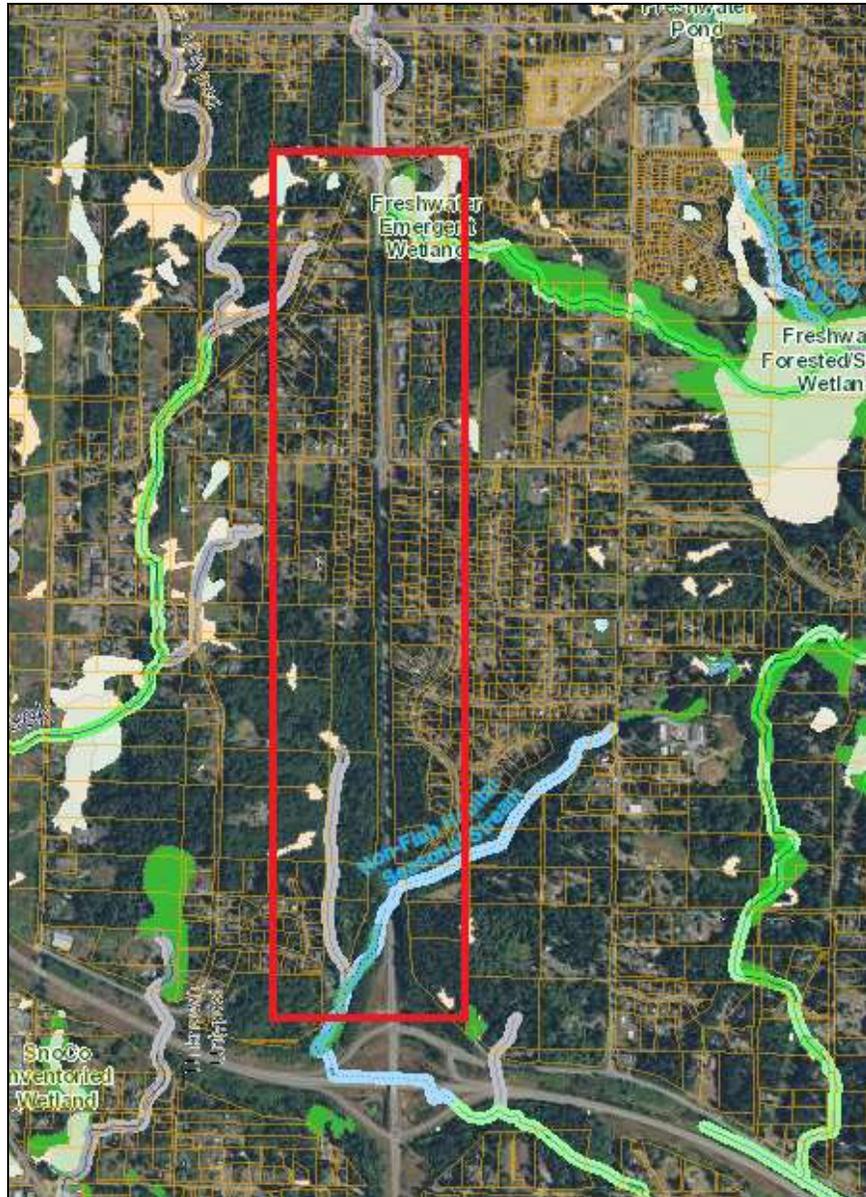


Figure 11: Costco Alternative 4 Property Search Area

Alternative 5. City of Lake Stevens Commercial Center

The area around the main commercial zoned land in the center of Lake Stevens was reviewed as an alternative site. Nearly all of the available land within this area is wetland. Development on these parcels would require substantial wetland fill and alteration, exceeding that of the preferred site. This area is already built out and Costco did not identify any property of sufficient size available for purchase.



Figure 12: Costco Alternative 5 Property Search Area

Alternative 6: Preferred Alternative

A total of 1.72 acres of Category II (46,592sf/1.069 ac) and Category III (29,031sf/0.66ac) would be impacted by construction of the Costco Facility and related infrastructure on the Preferred Alternative site. In addition, 2.24 acres of wetland will be impacted as “paper fill” to provide a 220’ buffer, as requested by the Washington Department of Ecology to mitigate for road construction impacts to Wetlands A & D.

Wetland D, a Category II wetland, will be impacted with 32,292sf (0.74 ac) of fill for the construction of the Costco Facility and 24th Street SE. Following consultation with the Tulalip Tribes of Washington, Costco is proposing 19,824 sf (0.45ac) of voluntary

wetland creation in Wetland D, due to its contribution to an off-site fish bearing stream's hydrology. Costco's voluntary wetland creation is not being included in its wetland mitigation credit calculations. As a result, for permitting purposes, all wetland impacts and paper fill impacts will be compensated for through bank credit purchase ignoring the actual wetland creation in Wetland D. The wetlands associated with the Preferred Alternative are discussed in the Sewall Wetland Consulting, Inc., September 10, 2019 Critical Areas Report ("Sewall CAR"), which is included in the resubmittal packet along with this analysis.

Figure 13 below depicts areas of the wetlands that would be impacted by the Costco Facility and associated Road Projects.

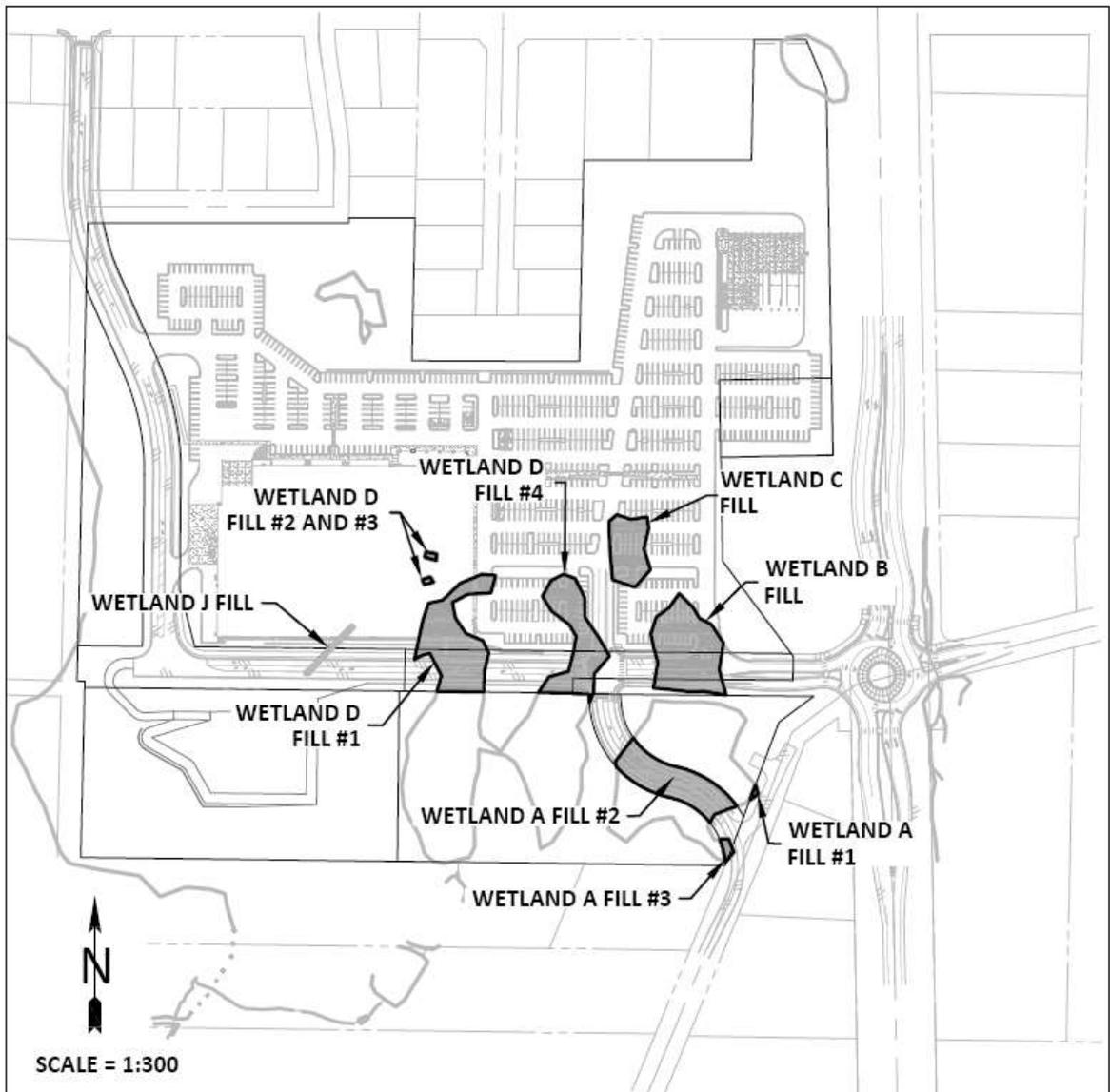


Figure 13: Site Plan for Preferred Alternative Showing Wetlands and impact areas.

Table C
Wetlands Located On or Near the Preferred Alternative Site

<u>Wetland</u>	<u>Water Quality</u>	<u>Hydrologic</u>	<u>Habitat</u>	<u>Total</u>	<u>Category</u>
A	7	7	6	20	II
B	6	7	4	17	III
C	7	8	4	19	III
D	6	7	7	20	II
F	6	5	5	16	III
M	6	8	6	20	II
J	5	5	6	16	III
<u>Offsite</u>					
X	7	6	7	20	II
Z	8	7	6	21	II

Table D
Summary of Wetland Impacts for Development on Preferred Alternative Site

WETLAND ID	TOTAL WETLAND FILL	ROAD IMPACTS	STORE IMPACTS
WETLAND A #1	154 SF (0.004 ACRES)	154 SF (0.004 ACRES)	0 SF (0.00 ACRES)
WETLAND A #2	13,540 SF (0.31 ACRES)	13,540 SF (0.31 ACRES)	0 SF (0.00 ACRES)
WETLAND A #3	606 SF (0.14 ACRES)	606 SF (0.14 ACRES)	0 SF (0.00 ACRES)
WETLAND B	19,086 SF (0.44 ACRES)	9,284 SF (0.21 ACRES)	9,802 SF (0.22 ACRES)
WETLAND C	8,579 SF (0.20 ACRES)	0 SF (0.00 ACRES)	8,579 SF (0.20 ACRES)
WETLAND D #1	17,831 SF (0.40 ACRES)	7,796 SF (0.18 ACRES)	10,035 SF (0.23 ACRES)
WETLAND D #2	171 SF (0.004 ACRES)	0 SF (0.00 ACRES)	171 SF (0.004 ACRES)
WETLAND D #3	230 SF (0.005 ACRES)	0 SF (0.00 ACRES)	230 SF (0.005 ACRES)
WETLAND D #4	14,060 SF (0.32 ACRES)	6,189 SF (0.14 ACRES)	7,871 SF (0.18 ACRES)
WETLAND J	646 SF (0.02 ACRES)	333 SF (0.01 ACRES)	313 SF (0.01 ACRES)
	74,903 SF (1.72 ACRES)	37,902 SF (0.87 ACRES)	37,001 SF (0.85 ACRES)

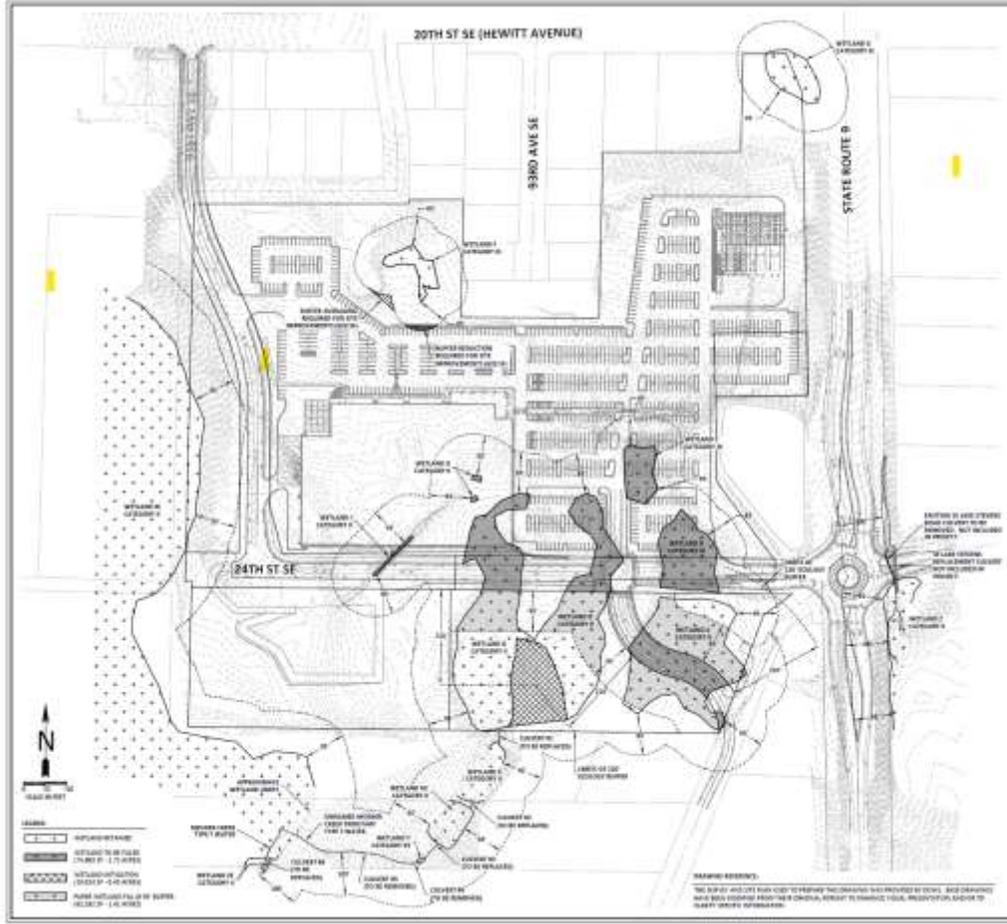


Figure 14: Proposed Stream Channel and Wetland Mitigation

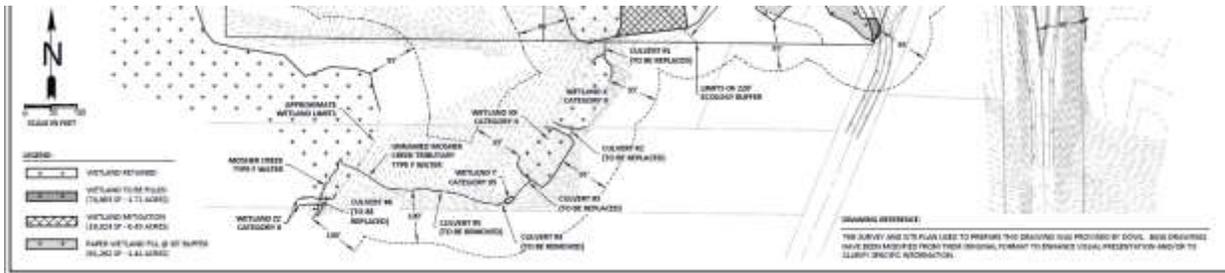


Figure 15: Enlargement of Mitigation Plan to Show Off-Site Stream Culvert Replacement

Alternatives 7 and 8: “No Action” Alternatives

The “No Action” alternatives of not constructing the project (Alternative 7) or expanding existing Costco Facilities (Alternative 8) do not meet the Project need of constructing a Costco Facility within the Lake Stevens service area. Costco has not identified a viable site with the Lake Stevens service area that does not contain any wetlands or other critical areas. Finally,

there is not enough property available on the Preferred Alternative site to reconfigure the Costco Facility, roads and stormwater pond to avoid all wetland impacts.

E. Discarding of Not Practicable Alternatives

An alternative is discarded if it

- (1) is not available or
- (2) does not meet project requirements or
- (3) does not achieve the overall project purpose.

Alternative 1: Does not meet project requirements. Lacks sufficient developable area.

Alternative 2: Does not meet project requirements. Lacks sufficient developable area.

Alternative 3: Does not meet project requirements. Lacks sufficient developable area.

Alternative 4: Property is not available.

Alternative 5: Property is not available.

Alternative 6: Property is available, meets project requirements, and meets project purpose.

F. Identification of Practicable Alternatives

The Preferred Alternative is the only site identified in the Lake Stevens service area that meets the Project selection criteria and allows construction of the Costco Facility.

G. Comparison of Impacts to Waters of the U.S. Across All Practicable Alternatives

Alternative 1 would require 12 acres of wetland impact to construct the Costco Facility.

Alternative 2 would require 4 acres of impact to construct the Costco Facility.

Alternative 6 (Preferred Alternative). The Preferred Alternative would require 1.83 acres of wetland impact to construct the Costco Facility and associated public roads.

H. Wetland Mitigation Strategies.

Costco has also considered the following wetland mitigation strategies:

- (1) Avoidance. See above analysis regarding “No Action” and “On-Site” alternatives.
- (2) Minimization:
 - a. Location.
 - i. In developing the conceptual plans for the Costco Facility and related road-improvements, the design team employed several design models to reduce and minimize impacts to wetlands. These methods include utilization of retaining walls along the south edge of the proposed 24th Street SE road extension to reduce the footprint of wetland impact. The road width was also reduced to the minimum needed for safe and efficient vehicle passage.
 - ii. Similarly, the Costco Facility’s wetland impacts have been minimized in the design process. For example, the number of parking spaces has been reduced. Neither the facility size nor the required parking can be further reduced without compromising project viability.

b. Material.

- i. Costco is exploring using bioengineering features such as bio-swales and the dispersion of clean roof water to support wetland hydrology, particularly in the area of proposed enhancement of Wetland D.

- (3) Compensatory Mitigation. Costco is compensating for the impact by replacing, enhancing, or providing on-site wetland creation and enhancement as shown on Figure 15 above. Additionally, as shown on Figure 16 above, in coordination with the Tulalip Indian Tribe, Costco is working with the City and neighboring landowners to modify several culverts that currently block fish passage. Finally, to offset unavoidable adverse impacts which remain after implementing all appropriate and practicable avoidance and minimization measures, Costco proposes mitigating the proposed Development's wetland impacts by participating in the Snohomish County wetland mitigation bank at the requisite replacement ratios. See September 10, 2019 Revised Wetland Bank Mitigation Plan attached as and September 10, 2019 Critical Area Report, which are included in the resubmittal packet along with this analysis.

E. Construction of Road Projects

1. Project Need and Public Interest

The Costco Facility Preferred Alternative location is in the City's 20th Street SE Corridor Subarea. The Subarea Plan was adopted by the City on September 24, 2012 (Ordinance 875). A copy of the Subarea Plan is attached as Appendix A. The goal of the Subarea Plan is to create an employment center that the Subarea Plan described as follows:

The 20th Street SE Corridor Subarea Plan is a key tool for the City to create an Employment Center through business park development, expanding retail areas, and increasing residential density near commercial and office areas. Specifically, the plan will create a framework to refine the area's land uses and zoning; analyze required improvements to the street network and other capital facilities; establish a vision for upgrading the aesthetic environment; and help attract new businesses and residents. The plan's vision for employment and commercial development with higher-density housing provides the foundation for developing a planned action, establishing regulations and standards, and identifying desired outcomes necessary to realize the overall vision for the 20th Street SE Corridor and direct its subsequent development. Additionally, the plan will provide conceptual guidance as to the intent of subsequent regulations and actions.

Subarea Plan, p. 5.

The Road Projects meet the need identified in the Subarea Plan for multiple routes of travel with clear circulation and access to destinations through enhanced and expanded north-south collectors and the construction of east-west circulation routes north and south of 20th St SE.

Two collectors - 91st Ave SE and 99th Ave SE connect the 20th Street Corridor to the Lake Stevens Center Subarea, providing alternate routes to SR-9. 24th Street SE will provide the primary east-west connector for local vehicle access and development as a multi-use trail street for walking and biking south of 20th Street SE. The analysis anticipated the need for an improved intersection where 24th Street SE, South Lake Stevens Road and SR-9 meet.

The construction of 24th St SE would provide a vital link in the southern portion of the City by paralleling 20th St SE; helping to alleviate vehicular trips off 20th St SE. The construction of 24th Street SE and a proper intersection at SR-9 would tie into and extend S. Lake Stevens Road west to Cavalero Park and create a continuous multi-use path benefiting all south Lake Stevens.

Figure 17 shows the location of major anticipated transportation improvements, including an intersection at South Lake Stevens Road / 24th Street SE and SR-9 and the alignment of 24th Street SE as a new east-west collector.

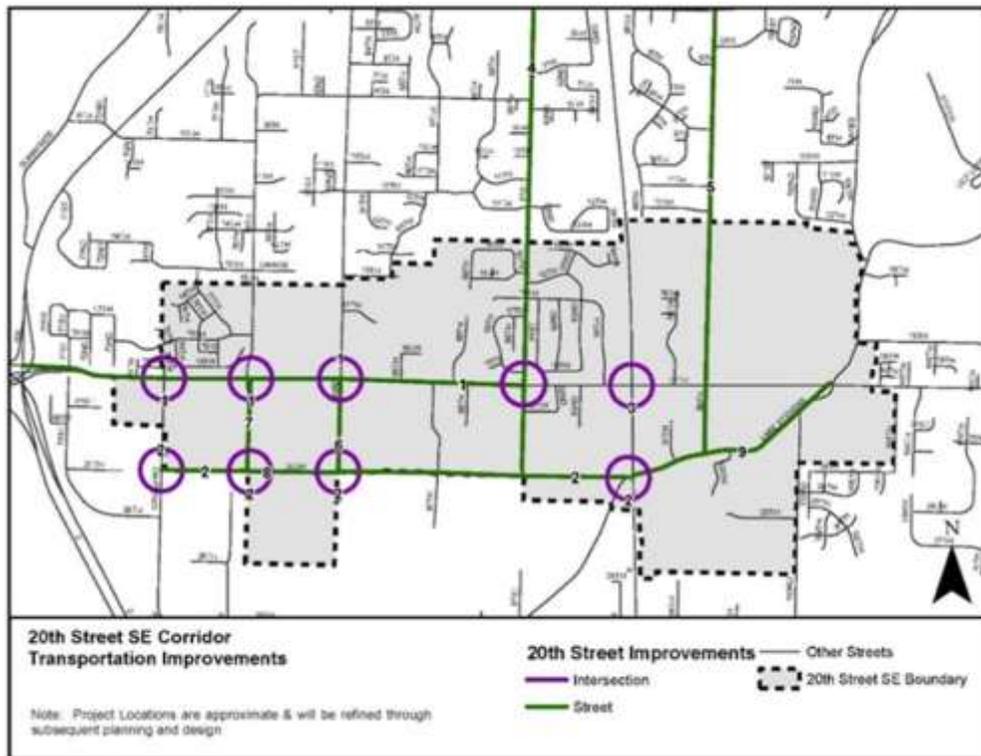


Figure 16: 20th Street SE Corridor Transportation Improvement Plan

The proposed 24th Street SE and 91st Avenue SE Road Projects provide solutions to several identified problems within the City’s current transportation system. Primarily, 24th Street SE provides an east-west spine while 91st Street SE provides a north-south spine designed to meet the City’s streets.

The Road Projects would connect to 20th Street SE, which the City is upgrading as part of its 20th St SE Phase II Project (widening from 83rd St SE to 91st Ave SE), to SR-9. The 24th Street SE

and 91st Avenue SE Projects will interconnect with the reconfiguration of S. Lake Stevens Road and with the extension of 24th Street SE to the west in the future.

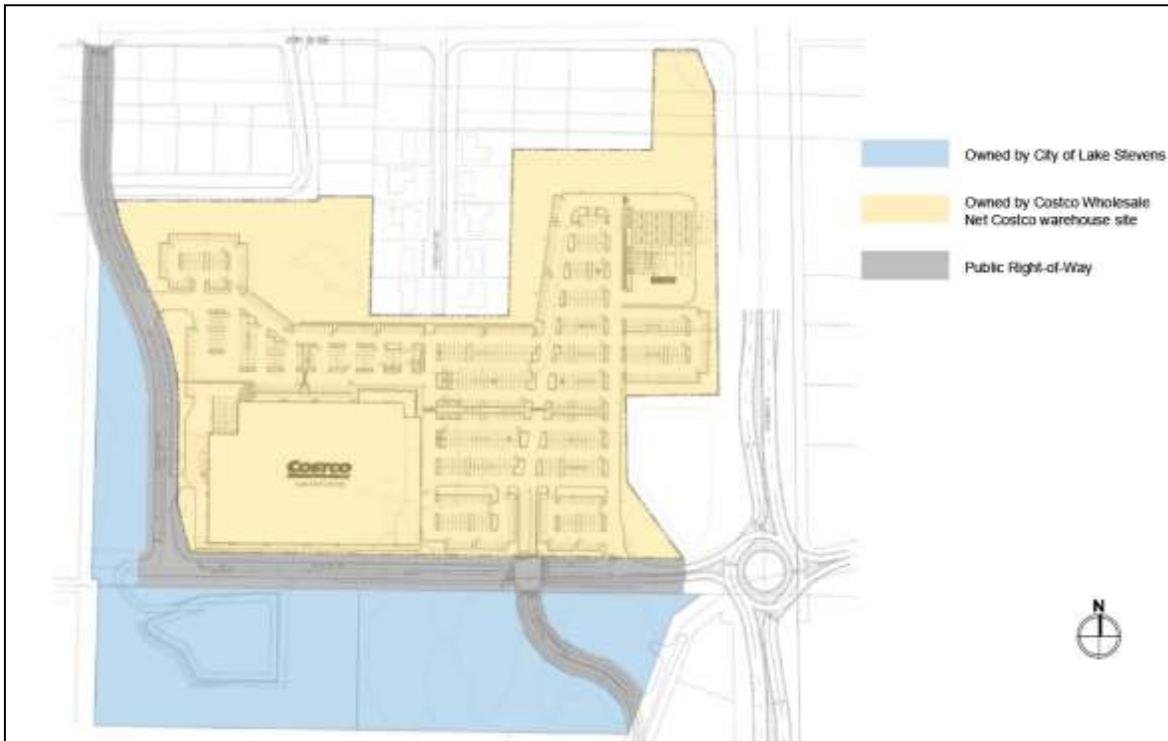


Figure 17: Relationship of Costco Property to City Property and Proposed Roads

24th Street SE

The addition of 24th Street SE is a logical east-west connector within the City's transportation system. The City lacks major east-west connectors, putting traffic pressure on the few existing connectors in the southern half of the City; 20th Street SE, 12th Street SE, 8th Street SE, and Market Place; none of which, except 20th Street SE, fully extend from SR-9 to SR-204 (see below maps).



Figure 18: Need for East-West Connector Roads

Proposed 24th Street SE is a much-needed parallel alternative to 20th Street SE, helping to reduce traffic congestion on 20th St SE, some of which has been generated by recent housing development in the area and pass-by trips from outside the City limits. The possible location for 24th Street SE is constrained to the south by current City limits and the Puget Sound Energy power transmission line, wetlands and a Mosher Creek tributary, and to the north by the City of Everett waterline corridor (just south of 20th Street SE). The properties north of 20th Street SE are fully developed, precluding the location of a new east-west road spine.

Construction of 24th Street SE would also provide better access to Cavalero Mid-High School and Cavalero Park in the future, a major goal of the City's, via a road extension west of the proposed 91st Street SE. The proposed location for South Lake Stevens Road is a natural connection lining up with the existing South Lake Stevens Road directly east across SR-9. The reconfiguration of South Lake Stevens Road will resolve the existing situation of unsafe access to the highway.

Intersection alternatives for 24th Street SE and SR-9 are currently being developed. The extent of wetland impacts associated with this intersection will be weighted as part of the alternatives' selection as conceptually designed impacts to the Waters of the State are minimized or avoided outright.

To reduce impacts to the environment, primarily wetlands and stormwater, 24th Street SE is being constructed with retaining walls, and a narrower roadway section (by the elimination of a planter strip and sidewalk on one side) to reduce the cut and fill footprint on the adjacent wetlands.

91st Avenue SE

The addition of 91st Avenue SE will help route traffic on/off 20th Street SE through 24th Street SE to SR-9. This logical extension helps the City achieve its goal of gridded streets (as does 24th

Street SE), extends the existing 91st Avenue SE to the south - continuing the north/south spine of 91st Avenue SE and essentially loops the road and traffic through the site. 91st Avenue SE will act as one of the City's major collectors, linking the City's two primary economic centers.

To reduce impacts to the environment, primarily wetlands and stormwater, 91st Avenue SE has been realigned to the east to avoid impacts to Mosher Creek and its associated wetlands/buffers.

South Lake Stevens Road

To reduce impacts to wetlands and improve traffic safety, South Lake Stevens Road is being realigned with the new 24th St SE and the new roundabout at SR-9. The intersection of this road and 24th Street SE will align with the entrance for a commercial development. This project consists of a short road connection of approximately 490 feet in length that will connect the new 24th Street SE roadway with the existing S. Lake Stevens Road west of SR-9. The roadway will consist of one north bound and one south bound lane and no planter strips nor sidewalks to minimize impacts to existing critical areas.

SR-9 Roundabout

Development of the Preferred Alternative Costco Facility site and the creation of the arterial road network for both east-west (24th Street SE) and north-south (91st Avenue SE) directions, requires a section of South Lake Stevens Road, west of SR-9, to be vacated, and realigned. Access between SR-9 and South Lake Stevens Road will be through 24th Street SE, and a new multi-lane roundabout at SR9. The proposed improvement at SR-9 will correct the current non-conforming geometry to bring the intersection to meet current design standard. The roundabout design will have two-lane approaches and departures for both Northbound and Southbound along SR-9; one lane approach and departure for both Eastbound and Westbound along South Lake Stevens Road, and 24th Street SE, respectively.



Figure : Proposed 24th Street SE and SR 9 Roundabout

24th Street SE

This project will create a new extension of 24th St SE, west of State Route 9 and south of 20th St SE for approximately 1,400 feet in length. The roadway will consist of one eastbound lane and one westbound lane with a four-foot planter strip and a ten-foot wide multi-use path on the north side. Creating a combined multi-use path reduces the roadway prism by four feet. In addition, to further reduce the wetland impacts to Wetlands B and D, retaining walls are proposed along both sides of 24th St SE.

91st Ave SE

This project will extend the existing 91st Ave SE, across 20th Street SE directly to the other side of the undeveloped terrain. This new road extension will be approximately 1,255 feet in length. The road will connect with the new 24th St SE (as described above). The roadway will consist of two - 11 ft through lanes, a 12 ft center turn lane, a four-foot-wide planter strip and a 10 ft-wide

multi-use path on the east side of the new road. By adding a horizontal curve to 91st Ave SE, this road section entirely avoids impacts to Mosher Creek and onsite wetlands.

South Lake Stevens Road

This connection is being designed with one northbound and one southbound lane and no planter strips or sidewalks to minimize impacts to Wetland A.

SR-9 Roundabout

The roundabout will have two-lane approaches and departures for both Northbound and Southbound along SR-9; one lane approach and departure for both Eastbound and Westbound along South Lake Stevens Road, and 24th Street SE, respectively. The proposed improvement at SR-9 will correct the current non-conformity geometry angle to realign the legs to intersect at a 90-degree angle. The proposed outside diameter of the roundabout is approximately 190 feet, to accommodate truck access. To minimize impact to wetland and to reduce the roadway footprint, a mountable truck apron design is utilized at the center of roundabout.

The eastern leg of this improvement would include the replacement of an undersized culvert to accommodate future fish passage. The proposed roundabout will connect east and west Lake Stevens with a safe intersection for motorists and pedestrians and improve traffic operations in the area.

I. Basic Project Purpose (Water Dependency)

The Road Projects are not water dependent but must be located in the general geographic area to create the east/west and north/south connections in the 20th Street Corridor Subarea.

J. Overall Road Project Purpose and Geographic Area

Through the City's planning process and environmental review for the 20th Street SE Corridor Subarea, the City analyzed three growth alternatives for this area, including an assessment of required improvements to the street network and other capital facilities. As adopted, the 20th Street SE Corridor Subarea is designed to incorporate high-urban residential growth, retail and light manufacturing uses. As such, the plan emphasized a complete multimodal transportation system that connecting commercial, retail, civic, and residential uses in a predictable gridded road system with safe and operational roadways and intersections.

The subarea plan identified the need for multiple routes of travel with clear circulation and access to destinations through enhanced and expanded north-south collectors and the construction of east-west circulation routes north and south of 20th Street SE. Two collectors - 91st Avenue SE and 99th Avenue SE connect the 20th Street Corridor to the Lake Stevens Center Subarea, providing alternate routes to SR-9 to alleviate local traffic and provide direct connections between the City's two economic centers. A new 24th Street SE will provide the primary east-west connector for local vehicle access and development as a multi-use trail street for walking and biking south of 20th Street SE. The analysis anticipated the need for an improved intersection where 24th Street SE, South Lake Stevens Road and SR-9 meet.

K. Project Criteria

a. Creation of Transportation Connections.

1. The proposed road construction projects of 24th Street SE and 91st Ave SE provide solutions to several identified problems within the City's current transportation system.
2. 24th Street SE provides an east-west spine, while 91st Street SE provides a north-south spine designed to meet the City's street connectivity and multimodal transportation needs.
3. The South Lake Stevens re-alignment corrects an unsafe intersection with a state highway by moving the alignment to the west.
4. The SR-9 roundabout corrects the intersection alignment at SR-9 and improves traffic circulation and mobility.

b. Practicability:

2) Logistics. Costco and the City used the following criteria in selecting the sites for the Road Projects:

- a) Encumbrances – as discussed, the location of the proposed roads (24th Street SE and 91st Avenue SE) and re-alignments (South Lake Stevens Road) are constrained by utility corridors to the north and south. There are also critical areas to the north and south and west to be avoided or minimized.
- b) Connectivity to Existing Street Grid – The Road Projects must meet the City's Engineering Design Development Standards, which includes intersection spacing, road grid connection spacing and spacing requirements for connections between neighborhoods. The Design Development Standards require that a road system have a minimum 150-foot intersection spacing. The road grid connection spacing is 800 feet. And the neighborhood connection spacing is one-half mile (2,650 feet) or less. Currently, the next east-west connection, north and parallel to 20th Street SE, is 8th Street SE, which is located more than 4,000 linear feet to the north. Further south and parallel to 20th Street SE is 32nd Street SE, which is located in Snohomish County, outside of Lake Steven City limits, approximately 4,000 linear feet to the south.
- c) Utilities – The Road Projects include several significant infrastructure improvements for stormwater, water and sewer. For example, a regional stormwater facility is proposed that would provide storage, water quality improvements and metered release into the natural environment per Department of Ecology standards. A regional sewer lift station is also proposed that would provide sanitary sewer capacity to serve the immediate 30 acres, in addition to providing sewer capacity to other residential and commercial properties. The most significant advantage to constructing a regional sewer lift station is reducing the number of septic drain fields and providing the ability for future development or replacement projects into the sanitary sewer system. The critical areas report, dated February 18, 2009, from Sewall Wetland Consulting, Inc. suggests that an existing drain field may be leaching into Wetland A.

- d) Constructability – based on geotechnical analysis and general engineering practices, the roads can be constructed as proposed while minimizing impacts to critical areas and improving traffic safety. Associated stormwater requirements will be located out of critical areas. Stormwater will be treated and dispersed back into the watershed. The sewer lift station and associated pipes will be contained in the road prism and public right-of-way and will follow standard engineering practices that protect the natural environment from domestic and commercial wastewater.
- e) Access/Proximity to Target Market - Existing Retail and Residential Areas – As discussed, the Road Projects will support residential and commercial areas identified in the City’s 20th Street Corridor Subarea Plan by creating an efficient road grid. The related infrastructure improvements are designed to support the City’s comprehensive and capital plans while improving the protection of the natural environment.
- f) Cost – the Road Projects must meet the City’s financial capabilities.
- g) Existing Technology - Use of existing technology (equipment, methods, and materials) in the engineering design, construction, maintenance, and operation of the Road Projects is preferred. As mentioned, the City is looking to constrain road profiles to minimize or avoid critical areas impacts. The City will employ best engineering practices as it develops the sewer and stormwater infrastructure to serve the 20th Street Corridor.

L. Identification of Potentially Practicable Alternatives (On-Site and Off-Site) Within Geographic Area

The following is a list of the alternatives looked at for Road Projects including a “No Action” alternative:

- A. City Preferred Alternative for the Road Project:
 - The City’s preferred alternative for the proposed road extensions and improvements is to develop the road segments as proposed with the most direct and safe configurations for pedestrian and motorized vehicles.
- B. On-Site Alternative(s):
 - 24th Street SE – The City considered moving 24th Street SE to the north. This alignment is problematic because the geometry would create substandard curves of 24th Street SE (an arterial) and it would no longer intersect with SR-9 at a standard intersection angle. Also, the topography of the site drops significantly if 24th Street SE were to be realigned to the north, which would require the construction of large walls, significant fills, and additional stormwater infrastructure. Shifting 24th Street SE to the north would still result in permanent impacts to Wetlands B and D and possibly C.
 - 91st Ave SE – the 91st Avenue SE alignment as designed avoids all onsite impacts to wetlands and streams.
 - South Lake Stevens Road – the City has considered moving the alignment of South Lake Stevens Road further west in between Wetlands A and D. However, this option would not eliminate permanent impacts to Wetland A. Moving this alignment would

only shift the impact to Wetland D from Wetland A, without reducing the total wetland impact footprint. If the road curvature would be reduced, it would impact the vehicular turning ability. The proposed mitigation strategy to connect and enhance Wetlands D and A in this area will mitigate for the proposed alignment. The City is coordinating with Snohomish County on the final re-alignment of South Lake Stevens Road.

C. Off-Site Alternative(s):

- There are no offsite alternatives for the Road Projects as they are connecting existing road linkages. There are also existing encumbrances that limit the potential alignments of 24th Street SE and South Lake Stevens including water and power utility corridors to the north and south. The Road Projects minimize direct wetland impacts to the extent possible while maintaining operational and safety factors.

M. Evaluation of Alternatives Based on Project Criteria

1) City Preferred Alternative for Road Project

a. Availability. The proposed road alignments are almost entirely within existing right-of-way or other public ownership.

b. Practicability

1. Logistics. Costco and the City evaluated this alternative based on project criteria described above, including the City's 20th Street Corridor Plan, the existing road locations, the potential impacts to the natural environment, existing encumbrances, available right-of-way, and the City's road design standards.
2. Existing Technology. The City will employ best management and engineering standards in the design of roads and utilities to ensure constructability and minimization of impacts to the environment.

2) "No Action" Alternative

The action alternative would not meet the Road Project need of providing connectivity and improved utilities in the 20th Street Corridor Subarea to serve existing residents and foster future economic development. It is also not practical to site the Road Projects in upland areas because of road alignment and geometry constraints. The Road Projects have been designed to avoid and minimize direct wetland impacts to the extent feasible.

N. Identification of Practicable Alternatives

The Preferred Alternative for the Road Project represents the best designs and locations for proposed improvements to meet the Road Project need while minimizing wetland impacts.

Comparison of Impacts to Waters of the U.S. Across All Practicable Alternatives

Adding a horizontal curve to 91st Ave SE avoids any impact to Mosher Creek and its buffer.

The needs of road grid system and the SR9 intersection geometry dictate the location and alignment of 24th Street SE. The 24th Street SE roadway footprint will have approximately 20,500 sf (0.47 acres) of direct wetland impacts.

Compensatory Mitigation. To offset unavoidable adverse impacts which remain after implementing all appropriate and practicable avoidance and minimization measures, the City proposes fully mitigating the Road Projects' wetland impacts by participating with Costco in the on-site wetland mitigation and off-site culvert enhancement projects.

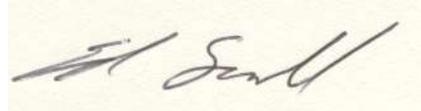
3) Conclusion of Alternatives Analysis

After careful consideration of possible alternative locations for a Costco Facility in the Lake Stevens service area, the Preferred Alternative is the only viable site for the Costco Facility as it meets the size, zoning, and location requirements. While some unavoidable wetland impacts will occur with development on the Preferred Alternative site, these impacts have been minimized to the extent feasible, are able to be mitigated, and are less than the wetland and stream impacts associated with similar development at other alternatives sites. As such, Costco's Preferred Alternative is the least environmentally damaging practicable alternative.

Additionally, the preferred alternative for the City's Road Project meet the goals of the City's 20th Street SE Subarea Plan and create needed east/west and north/south multi-modal transportation connections that serve the public interest. While some wetland impacts are unavoidable, these have been minimized to the extent practicable and the proposed configuration of the Road Projects is the least environmentally damaging practicable alternative.

If you have any questions please feel free to contact me at (253) 859-0515 or at esewall@sewallwc.com.

Sincerely,
Sewall Wetland Consulting, Inc.



Ed Sewall
Senior Wetland Ecologist

APPENDIX A

CITY OF LAKE STEVENS 20TH STREET SE SUBAREA PLAN